INSTALLATION OF COMMERCIAL REMOTE READING WATER METERS



FOR THE CITY OF PASS CHRISTIAN



DECEMBER 2019

161 LAMEUSE STREET, SUITE 203 BILOXI, MS 39530

633 DELMAS AVE., SUITE B PASCAGOULA, MS 39567 Set No. _____

INSTALLATION OF COMMERCIAL REMOTE-READING WATER METERS

FOR THE

CITY OF PASS CHRISTIAN

DECEMBER, 2019

OVERSTREET & ASSOCIATES, PLLC CONSULTING ENGINEERS

161 LAMEUSE STREET, SUITE 203 BILOXI, MS 39530

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ADVERTISEMENT FOR BIDS

City of Pass Christian, Mississippi

The City of Pass Christian, Mississippi, will receive bids for:

Installation of Commercial Remote Reading Water Meters

at the Office of the City Clerk, City Hall, Pass Christian, Mississippi, during normal office hours at any time prior to the designated bid date, but not later than 3:30 p.m. on the date of the bid opening. Bids will be publicly opened and read aloud at a regular meeting of the Board of Aldermen at 6:00 P.M., February 4, 2020. The meeting will be held at the Board meeting room in the City Hall Complex located at 200 West Scenic Drive, Pass Christian, MS.

Bids are invited for the furnishing of materials, equipment, labor, and incidentals necessary to remove and replace the existing water commercial water meters.

Contract Documents, including Drawings and Technical Specifications, are on file at the Office of City Clerk, at City Hall, Pass Christian, Mississippi. Official bid documents can also be downloaded from Central Bidding at www.centralbidding.com. Electronic bids can be submitted at www.centralbidding.com. For any questions relating to the electronic Central Bidding process, please call Central Bidding at 225-810-4814. Bid Documents may also be obtained at www.overstreetengplans.com. If there are any questions related to the process of obtaining plans from the www.overstreetengplans.com plan room, please contact the Plan House at 228-248-0181.

A certified check or bank draft payable to the order of City of Pass Christian, Mississippi, negotiable U. S. Government bonds (at par value), or a satisfactory Bid Bond executed by the Bidder and an acceptable surety, in an amount equal to five percent (5%) of the total bid for City of Pass Christian, "Installation of Commercial Remote Reading Water Meters", shall be submitted with each bid.

For bids exceeding \$50,000 Bidder must indicate his <u>Certificate of Responsibility Number</u> on outside of sealed proposal as required by Mississippi Law. For bids not exceeding \$50,000, Bidder must either indicate his Certificate Number, or else write clearly "Bid does not exceed \$50,000."

The City of Pass Christian, Mississippi, reserves the right to consider the following relevant factors in addition to the contract price in determining the lowest and best bid: bidder's skill and business judgment, his experience and his facilities for carrying out the contract, his previous conduct under other contracts and the quality of previous work, as well as his pecuniary ability, honesty, and integrity. The City also reserves the right to reject any or all bids or to waive any informalities in the bidding.

Awarding public contracts to non-resident Bidders will be on the same basis as the non-resident bidder's state awards contracts to Mississippi Contractors bidding under similar circumstances. In order to ensure that Mississippi's so-called Golden Rule is followed, state law requires a non-resident bidder to attach to his bid a copy of his resident state's current laws pertaining to such state's treatment of non-resident contractors.

Bids may be held by the City of Pass Christian, Mississippi, for a period not to exceed ninety (90) days from the date of the opening of bids for the purpose of reviewing the bids and investigating the qualifications of Bidders, prior to awarding of the Contract.

Authorized by order of the Mayor and Board of Alderman, December 17, 2020.

City	of Pass Christian, Mississippi
Ву _	Marian Governor
Title	CITY CLERK

Publish December 27, and January 3, 2019

INFORMATION FOR BIDDERS

(1) RECEIPT AND OPENING OF BIDS

The City of Pass Christian (herein called the "Owner"), invites bids on the form attached hereto, all blanks of which must be appropriately filled in. Bids will be received by the Owner at the office of the City Clerk, in the new City Hall complex located at the intersection of Heirn Avenue and Scenic Drive, P.O. Box 368, Pass Christian, Mississippi, 39571, during normal office hours at any time prior to the designated bid date, but not later than 3:30 p.m. on the date of bid opening. Bids will be publicly opened and read aloud at a special meeting of the Board of Aldermen which will start at 6:00 p.m., February 4, 2020. The meeting will be held at Board Room at the City Hall complex located at 200 West Scenic Drive, which is at the intersection of Heirn Avenue and West Scenic Drive.

The envelopes containing the bids must be sealed, addressed to City Clerk, City of Pass Christian, at City Hall, Pass Christian, Mississippi, and designated as Bid for:

INSTALLATION OF COMMERCIAL REMOTE-READING WATER METERS

The Owner will consider NULL AND VOID any bid not prepared and submitted in accordance with the provisions hereof and such bid <u>will be rejected</u>. Any bid may be withdrawn prior to the above scheduled time for the opening of bids or authorized postponement thereof. Any bid received after the time and date specified shall not be considered. No Bidder may withdraw a bid within 90 days after the actual date of the opening thereof.

(2) METHOD OF BIDDING

The Owner invites the following bid(s):

A unit price bid for the construction of the entire project.

The bidder shall fully understand that the unit prices are independent to the exact quantities involved. The quantities in the bid documents are approximate and the Owner/Engineer uses them for comparison of Bids only.

The Owner will only pay the Contractor for the actual quantities of work performed and accepted according to the Contract Documents. The Owner may increase, decrease or omit the scheduled quantities of work without invalidating the Bid prices.

(3) TIME OF COMPLETION AND LIQUIDATED DAMAGES

Bidder must agree to commence work on or before a date to be specified in a written "Notice to Proceed" of the Owner and to fully complete the project within 300 calendar days thereafter. Bidder must agree also to pay as liquidated damages, the sum of \$500.00 for each consecutive calendar day thereafter as hereinafter provided in the General Conditions.

(4) PREPARATION OF BID

Each bid must be submitted on the prescribed form, <u>fully completed and executed by principals of Bidder</u>. All blank spaces for bid prices must be filled in, in ink or typewritten, in both words and figures. Each bid must also include two original fully executed "CERTIFICATION"

REGARDING DEBARMENT, SUSPENSION, NON-COLLUSION AND OTHER RESPONSIBILITY MATTERS" forms.

Non-resident contractors must enclose in the bid envelope a copy of his resident state's current law pertaining to that State's treatment of non-resident contractors, as required by Miss Code Ann. Section 31-3-21(3).

Each contractor shall submit with his bid, a signed and notarized affidavit stating that he has read and understands the project plans and contract documents. Failure to submit the affidavit shall be cause for considering the contractor's bid irregular and maybe subject to being disqualified.

(5) SUBCONTRACTS

The successful Bidder may subcontract portions of the work subject to the approval of the Owner and Engineer, but not more than 49% of the contract. The successful bidder will be required to perform at least 51% of the work on the project with his own forces. All Subcontractors being assigned a portion of the Work in the amount of fifty-thousand dollars (\$50,000) or more must possess a current Mississippi Contractor's Certificate of Responsibility.

Attention of Bidders is also called to the provision of the State Law requiring that the <u>classification</u> of the Bidders Certificate of Responsibility be proper for the type of work. The particular classification of work must be at least 50 percent of the total cost of the project. Acceptance of any Bid will be subject to review and concurrence by the Mississippi State Board of Contractors for the proper classification.

The Bidder further proposes that a list of subcontractor firms or businesses will be submitted to the Engineer and Owner within 24-hours following the opening of the Bid. The list will at a minimum include the information shown below. Failure to submit the list of subcontractors within the 24-hour period shall be considered an irregularity in the Bid and will make the Bid subject to rejection by the City of Pass Christian. If the Bidder does not intend to subcontract portions of the work, the Bidder must provide a letter stating the fact that no subcontractors will be used on the project within the 24-hour time period. Failure to submit the letter within the 24-hour period shall be considered an irregularity in the Bid and will make the Bid subject to rejection by the City of Pass Christian.

		% of Total Contract
A.	Work Description Name Street Address City	
B.	Work Description Name Street Address City	

The Bidder's attention is directed to the fact that it shall be unlawful and illegal for a Primary Contractor, Contractor, Owner, Awarding Authority, Sub-Contractor, or any other person to contract, or sub-contract, all or any portion of a public or private construction project regulated by Chapter 527, General Laws of Mississippi – 1988 (Sections 31-3-1 through 31-3-23, Miss. Code Ann. (1972, as amended)), exceeding fifty thousand dollars (\$50,000.00) with respect to public projects unless the Contractor, or Subcontractor was duly licensed by the Mississippi State Board of Contractors as of the date fixed for the submission of bids on the work from the Primary Contractor, to the Owner, or Awarding Authority. It is further provided that the Prime Contractor, on or before the date of being awarded the prime contract, shall submit to the awarding agency, a list of all sub-contracts, exceeding fifty thousand dollars (\$50,000.00) with respect to public projects.

Within 10 calendar days following award of the contract, any subcontractor, who is approved by the Engineer in writing, to be assigned a portion of the contract shall submit two original fully completed and executed "CERTIFICATION REGARDING DEBARMENT, SUSPENSION, NON-COLLUSION AND OTHER RESPONSIBILITY MATTERS" forms to the Engineer.

(6) QUALIFICATIONS OF BIDDER

Each Bidder shall, if requested by the Owner, submit a Statement of Bidder's Qualifications, his experience record in constructing the type of improvements proposed, his organization and equipment available for the work contemplated, and, when specifically requested by the Owner, a detailed financial statement. The Owner shall have the right to take such steps as it deems necessary to determine the ability of the Bidder to perform his obligations under his contract and Bidder shall furnish such information and data for this purpose as may be requested. The right is reserved to reject any bid where an investigation of the available evidence does not satisfy the Owner that the Bidder is qualified to carry out properly the terms of the Contract.

(7) QUALIFICATIONS OF METER MANUFACTURER (To be submitted with the BID)

The remote-reading water meters and related equipment and software provided by the Contractor under this contract must be supplied by an approved manufacturer who is experienced with the manufacture and support of municipal remote-reading water meters of the type specified in the Technical Specifications herein. Complete submittal data, including but not limited to data for the following components proposed to provide a fully functioning system: the meters; the Automated Meter Reading (AMR) remote-reading equipment; the computer; the host software; and, warranty information for each component provide SHALL BE SUBMITTED with Contractor's bid. This submittal shall include all details of the proposed equipment to indicate conformance with the Specifications, and shall enumerate in detail any exceptions to the specifications. Also include a list and contact data for not less than ten existing water utilities which have successfully used equipment substantially identical to that proposed for this project.

(8) BID SECURITY

Each bid must be accompanied by cash, certified check of the Bidder, or a bid bond prepared on the form of bid bond attached hereto, duly executed by the Bidder as principal and having as surety hereon a surety company approved by the Owner, in the amount of five percent (5%) of the bid. Such cash, checks or bid bonds will be returned to all except the three lowest bidders within three days after the opening of bids, and the remaining cash, checks or bid bonds will be returned promptly after the Owner and the accepted bidder have executed the contract, or, if no award has been made within 90 days after the date of the opening of bids, upon demand of the Bidder at any time thereafter, so long as he has not been notified of the acceptance of his bid.

(9) LIQUIDATED DAMAGES FOR FAILURE TO ENTER INTO CONTRACT

The successful Bidder, upon his failure or refusal to execute and deliver the contract and bonds required within 10 days after he has received notice of the acceptance of his bid, shall forfeit to the Owner, as liquidated damages for such failure or refusal, the security deposited with his bid. In the event of the failure of the successful Bidder to enter into the contract, the Owner has the right to rescind the award and award the contract to the next lowest, responsible, responsive bidder.

(10) CONDITIONS OF WORK

Each Bidder must inform himself fully of the conditions relating to the construction of the project and the employment of labor thereon. Failure to do so will not relieve a successful bidder of his obligations to furnish all material and labor necessary to carry out the provisions of his contract. Insofar as possible the Contractor, in carrying out his work, must employ such methods or means as will not cause any interruption of or interference with the work of any other contractor.

The Contractor, in carrying out his work, must employ such methods or means as will not cause any interruption of or interference with the work or operation of any other contractor or adjacent business.

Access to local businesses by employees/patrons as well as residents must be provided at all times during the construction of the project. The City of Pass Christian reserves the right to be able to designate what locations within the project can be accessed during the contract time. The City of Pass Christian also reserves the right to be able to limit access to certain portions of the work at no additional cost to the Owner or Engineer.

All utility work must be coordinated with the City of Pass Christian water and sewer operator.

(11) ADDENDA AND INTERPRETATIONS

No interpretation of the meaning of the plans, specifications or other pre-bid documents will be made to any Bidder orally.

Every request for such interpretation should be in writing addressed to Overstreet & Associates, PLLC, 161 Lameuse Street, Suite 203, Biloxi, MS 39530 and to be given consideration must be received at least five days prior to the date fixed for the opening of bids. Any and all such interpretations and any supplemental instructions will be transmitted to all registered plan holders by facsimile transmission with return receipt requested, not later than three days prior to the date fixed for the opening of bids. Failure of any bidder to receive any such addendum, interpretation or clarification shall not relieve such bidder from any obligation under this bid as submitted. All addenda, interpretation or clarification so issued shall become part of the Contract Documents.

(12) SECURITY FOR FAITHFUL PERFORMANCE

The successful bidder shall file with the Owner, a performance bond and payment bond on the forms bound herewith, each with the full amount of the Contract price in accordance with the requirements of the Mississippi Code Section 31-5-51, as applicable, as security for the faithful performance of the contract and payment for all persons supplying labor and materials for the construction of the work, and to cover all guarantees against defective workmanship or materials or both for a period of one (1) year after the dated of final payment of the completed project.

The surety furnishing the bonds shall have a sound financial standing and a record of service satisfactory to the Owner, and shall be authorized to do business in the State of Mississippi. The Contractor must furnish a surety bond or bonds as security for faithful performance of this contract and for the payment of all persons performing labor on the project under this contract and furnishing materials in connection with his contract, as specified in the General Conditions included herein. The surety on such bond or bonds shall be a duly authorized surety company satisfactory to the Owner.

(13) POWER OF ATTORNEY

Attorneys-in-fact who sign bid bonds or contract bonds must file with each bond a certified and effectively dated copy of their power of attorney from the Surety, together with a copy of their license from the State of Mississippi to sign surety bonds for work in the State of Mississippi, as evidence of his authority to bind the surety on the date of execution of the bond.

(14) LAWS AND REGULATIONS

The Bidder's attention is directed to the fact that all applicable State laws, municipal ordinances, and the rules and regulations of all authorities having jurisdiction over construction of the project shall apply to the contract throughout, and they will be deemed to be included in the contract the same as though herein written out in full.

The Bidder shall be required to implement appropriate best management practices to reduce erosion and control sediment discharge to adjacent streams and wetlands as outlined in "Planning and Design Manual for Control of Erosion, Sediment, and Stormwater" (MDEQ, MSWCC, and USDA SCS 1994) and "Field Manual for Erosion and Sediment Control on Construction Sites in Mississippi" (MDEQ, 2002). Noncompliance with this may be cause for delaying or withholding payment applications.

Each Bidder shall inform himself of, and the bidder awarded the Contract shall comply with, federal, state and local laws, statutes, and ordinances relative to the execution of the work. This requirement includes, but is not limited to, applicable regulations concerning minimum wage rates, nondiscrimination in the employment of labor, protection of public and employee safety and health, environmental protection (i.e., Clean Air Act, Clean Water Act, etc.), the protection of natural resources, fire protection, burning and non-burning requirements, permit fees and specifically all of the requirements of 44CFR13.36. Noncompliance with this may be cause for delaying or withholding payment applications.

(15) METHOD OF AWARD – LOWEST RESPONSIVE, RESPONSIBLE, QUALIFIED BIDDER

If at the time the contract is to be awarded, the lowest base bid submitted by a responsible Bidder does not exceed the amount of funds then estimated by the Owner as available to finance the contract, the contract will be awarded. The City of Pass Christian, Mississippi, reserves the right to consider the following relevant factors in addition to the contract price in determining the lowest and best bid: bidder's skill and business judgment, his experience and his facilities for carrying out the contract, his previous conduct under other contracts and the quality of previous work, as well as his pecuniary ability, honesty, and integrity. The City also reserves the right to reject any or all bids or to waive any informality in the bidding. The City also reserves the right to reject any unbalanced bids. An unbalanced bid is one in which each bid item fails to carry its proportionate share of the overhead and profit in addition to the necessary costs for the item, which results in understated prices for some items and overstated prices for others potentially involving the majority of the contract amount to be paid at the beginning of the project (e.g., Front End Loading). A materially unbalanced bid is one in which there is reasonable doubt that award to the bidder submitting an unbalanced bid will result in the lowest ultimate cost to the City of Pass Christian (Owner).

In order to be considered responsible with the Advertisement for Bids, a Bid must:

- 1. Be completed, signed and be in compliance in all aspects to the conditions of the Advertisement for bids and Information to Bidders;
- 2. Be made on the forms provided and submitted intact;
- 3. Be accompanied by the required bid security; and,
- 4. Contains no alterations to the terms or conditions of these Contract Documents except as specifically directed in these Contract Documents.

In order to be considered responsive, a Bidder must establish to the complete satisfaction of the Owner, as a minimum, that he has:

- 1. A permanent place of business;
- 2. Adequate financial resources to meet his Contract obligations an will maintain same for the Contract period;
- 3. Adequate equipment to perform the work properly and within the time provided for in the Contract;
- 4. The necessary experience and technical qualifications in the type of work provided for in the Contract;
- 5. Adequately performed his current work to the satisfaction of the Owner;
- 6. Scheduled his current work load in such a manner that he is on time and is scheduled to complete the work within the time period specified; and,
- 7. Performed the type of work contemplated by these documents for the previous five years.

(16) OBLIGATION OF BIDDER

At the time of the opening of bids each Bidder will be presumed to have inspected the site and to have read and to be thoroughly familiar with the plans and contract documents (including all addenda). The failure or omission of any bidder to examine any form, instrument, or documents shall in no way relieve any Bidder from any obligation in respect of his bid.

(17) CERTIFICATE OF RESPONSIBILITY

Attention of all Bidders is called to the provision of the State Law requiring a Certificate of Responsibility for all Contractors contracting for public work in excess of \$50,000.00. Bidder shall have complied with the requirements of this law and shall state their certificate number on the face of the envelope containing their Bid and in the space provided in the Bid Form. No Bid shall be opened or considered unless such Contractor's current certificate number appears on the outside or exterior of said envelope or container or unless there appears a statement on the outside or exterior of such envelope or container to the effect that the Bid enclosed therein does not exceed fifty thousand dollars (\$50,000.00).

Attention of Bidders is also called to the provision of the State Law requiring that the <u>classification</u> of the Bidders Certificate of Responsibility be proper for the type of work. The particular classification of work must be at least 50 percent of the total cost of the project. Acceptance of any Bid will be subject to review and concurrence by the Mississippi State Board of Contractors for the proper classification.

(18) CERTIFICATE OF RESPONSIBILITY

All work must be guaranteed for one (1) year after final payment by the OWNER against defects in workmanship or materials.

(19) CERTIFICATE OF RESPONSIBILITY

The successful Bidder will be required to furnish Certificates of Insurance covering Workman's Compensation, Contractual Liability and Indemnification, Public Liability and Property Damage. Limits of liability shall be set forth in the Supplementary General Conditions.

Overstreet & Associates, PLLC and the City of Pass Christian must be listed as Additional Insured on the Certificate of Liability Insurance with subrogation waived.

(20) ASSIGNMENT OF CONTRACT

The Bidder to whom the contract is awarded will not be permitted to assign this contract or any portion thereof without the approval of the Owner in writing.

(21) DEBARMENT

Any contractor or sub-contractor listed on the Federal Debarment List will be excluded from work on this project.

Two original fully completed and executed "CERTIFICATION REGARDING DEBARMENT, SUSPENSION, NON-COLLUSION AND OTHER RESPONSIBILITY MATTERS" forms shall be submitted by the prime contractor with the bid documents.

(22) SUBMITTALS

The successful bidder shall, within 10 calendar days following the Notice of Award, submit to the Engineer a project schedule demonstrating timely performance of the work within the contract time, and a projected cash flow for the disbursement of funds from the City.

Within 10 days after receipt of the Notice of Award, the contractor shall provide the Engineer with two (2), preconstruction video copies (i.e., DVD) of the project area in sufficient detail, with landmarks (i.e., street signs at cross streets, addresses, etc.) to show all existing features associated with the scope of work (i.e., existing conditions of meter locations and addresses, etc.), including all existing facilities and/or structures which are adjacent to and along these routes which might be damaged by the Contractor's operations. Provide an audio description of the locations for each of the meter replacements. The video shall be in DVD format. The preconstruction video will be subject to review and/or rejection by the Engineer and Owner. If sufficient detail is not observed in the video, the contractor shall be required to resubmit. Failure to provide sufficient detail in the video shall be cause for withholding or delaying progress payments. A Notice to Proceed for the work will not be issued until the Engineer receives an acceptable preconstruction video.

The contractor shall also submit two (2) post construction DVD video copies of the project area demonstrating the same physical features provided in the preconstruction video. The video shall be in DVD format. The preconstruction video will be subject to review and/or rejection by the Engineer and Owner. If sufficient detail is not observed in the video, the contractor shall be required to resubmit. The above records are intended for use as evidence in ascertaining the extent of any damage which may occur as a result of the Contractor's operations and are for the protection of adjacent property owners, the Contractor, and the Owner. Failure to provide sufficient detail shall be cause for withholding or delaying final payment. The Contractor shall also provide all Operations and Maintenance data/information prior to project closeout.

All submittal information must be submitted to and reviewed by the Engineer prior to scheduling a final inspection.

A final punch list for work to be completed will not be issued until the post-construction video is reviewed and accepted by the Engineer and the City's water and sewer operator for their relative accuracy.

(21) SYSTEM MAINTENANCE PRIOR TO ACCEPTANCE - N/A

The contractor shall be responsible for at least weekly flushing of the distribution system from the time acceptable bacteriological test results are obtained until the date when the project is accepted by the Owner. The contractor shall submit a proposed flushing schedule to the Owner and water operator for concurrence prior to beginning the flushing activities. All flushing activities shall be coordinated with the City's Water and Sewer Operator (WPSCO) and the Fire Department.

In the event that the contractor's activities disrupt the continuous flow in the water main, in which case a previously "looped" system becomes a "dead-end" main, the contractor shall be responsible for flushing the "dead-end" main as often as necessary to maintain the clarity and quality of the water to the existing residents. These flushing activities shall be coordinated with the City's Water and Sewer Operator (WPSCO) and the Fire Department.

(22) RESPONSIBILITY FOR UTILITY PROPERTIES AND SERVICE

Neither the Owner nor his officers or agents shall be responsible to the Contractor for damages as a result of the Contractor's failure to protect utilities encountered in the work.

The Contractor shall at all times provide unobstructed access to fire hydrants, underground conduit, manholes and water or gas valve boxes.

Where the Contractor's operations could cause damage or inconvenience to railway, telegraph, telephone, television, power, oil, gas, water, sewer, irrigation, or other systems adjacent or near the work, operations shall be suspended until the Contractor has made all arrangements necessary for the protection of these utilities and services and the Engineer has been notified of these arrangements.

Notify the Engineer and all utility offices that are affected by the construction operation at least 7 days in advance of commencing construction operations. The Contractor shall not expose any utility without first obtaining written permission from the appropriate agency and providing written notification to the Engineer of this permission. Once permission has been granted, locate and, if necessary, expose and provide temporary support and/or relocation in advance of operations.

Protect all utility poles from damage. If interfering utility poles, guy wires or anchors are encountered, the Contractor shall notify the Engineer and the appropriate utility company as soon as possible and at least 48 hours in advance of construction operations to permit the necessary arrangements for protection or relocation of the interfering poles.

The Contractor shall be solely and directly responsible to the Owner and operators of such utility properties for any damage, injury, expense, loss, inconvenience, delay, suits, actions, or claims of any character brought because of any injuries or damage that may result from the construction operations under his Contract.

In the event of interruption to domestic water, sewer, storm drain, or other utility services as a result of accidental breakage due to construction operations, promptly notify the proper authority. Cooperate with said authority in restoration of service as promptly as possible and bear all costs of repair. In no event shall interruption of any water or utility service be allowed unless prior approval is granted by the Owner of the utility. The City will not allow large portions of the project area to have service interrupted or allowed to be under a "boilwater" advisory. Unless expressly permitted by the Owner, in writing, the contractor will not be allowed to schedule any activities on Fridays that will jeopardize the existing water and sewer system operations, such as "hot taps" or exposing any of the existing transite water mains.

The Contractor shall replace, at his own expense, any and all other existing utilities or structures removed or damaged during construction, unless otherwise provided for in these Contract Documents or ordered by the Engineer.

(23) RELOCATIONS REQUIRED BY CONSTRUCTION

Where existing utilities, structures, or other physical obstructions block or impede construction under this Contract, they shall be permanently relocated. Such relocations shall be considered as required by construction. All other relocations shall be treated in accordance with UTILITY INTERFERENCE INCIDENTAL TO CONSTRUCTION below.

The Contractor shall give immediate notice to the Engineer and the Owner of the utility when a physical conflict is determined to exist. The actual relocation will be accomplished by the Owner of the utility, structure or other physical obstruction unless otherwise specified in these Contract Documents. Any delays resulting from the required relocations of the utilities are the responsibility of the Contractor.

(24) UTILITY INTERFERENCE INCIDENTAL TO CONSTRUCTION

Where existing utility lines or structures are so located as to interfere with the Contractor's method of performing the work, but do not reasonably block or impede construction, under the Contract, any modification, alteration, or relocation of interfering utility, either permanent or temporary, shall be accomplished at the expense of the Contractor.

The Contractor shall give immediate notice to the Engineer and the Owner of the utility when an interference is determined to exist and shall obtain approval to relocate such utility or to discontinue service there from the Engineer and the Owner of the utility. The Owner of the utility shall have the right to do all work required to discontinue service, relocate the interfering utility, and/or replace interfering utilities and charge the Contractor for all costs thereof. When approved by the Engineer and the owner of the utility, all work required to discontinue service, relocate the interfering utility, and/or replace interfering utilities may be done by, or arranged for, by the Contractor. All such discontinuance, relocation, and replacement shall be accomplished in accordance with all requirements of the owner of the utility.

When notified by the Contractor that an interference or conflict has been determined to exist, the Engineer will determine whether such interference shall be considered as required by construction or as incidental to construction.

(25) INTERFERING STRUCTURES

Take necessary precautions to prevent damage to existing structures where on the surface, aboveground, or underground. An attempt has been made to show major structures on the drawings. While the information has been compiled from the best available sources, its completeness and accuracy cannot be guaranteed, and it is presented as a guide to avoid known possible difficulties.

Protect existing structures (i.e., driveways, culverts) from damage, whether or not they lie within the right-of-way or the limits of the easements obtained by the Owner. Where existing structures are damaged during the work, they shall be restored at the Contractor's expense to at least their original condition or better and to the satisfaction of the Engineer.

The Contractor may, with the approval of the Engineer and adjacent property owner, and without additional compensation, remove and replace in a condition as good as or better than original, any small interfering structures such as fences, mail boxes and signposts that interfere with the Contractor's operations.

(26) FIELD RELOCATION

During the progress of the work, minor relocations of the work may be necessary. Such relocations shall be made only with the agreement of the Engineer. If existing structures are encountered that will prevent construction as shown, notify the Engineer before continuing

with the work in order that the Engineer may make such field revisions as necessary to avoid conflict with the existing structures. If the Contractor proceeds with the work despite this interference, he shall be responsible for any damages that may occur. The Engineer and Owner shall not be responsible for delays related to field relocations of existing structures unless otherwise approved by the Engineer and Owner.

(27) VERTICAL AND HORIZONTAL CONTROL

The Engineer will provide baseline control points for the contractor's use in project layout. The Contractor shall provide any additional vertical and horizontal control points if necessary for construction. It will be the Contractor's sole responsibility to lay out the work. When new construction connects to existing facilities, the Contractor shall check and establish the exact location of the point of connection prior to construction. The Engineer will not be responsible for any elevations given other than those provided as indicated herein.

All control points, marks, and other information shall be carefully preserved by the Contractor, and in the event of their careless or unnecessary destruction or removal by him or any of his subcontractors, such stakes, marks, and other information will be replaced at the Contractor's expense by means of a deduction from the Contract monies due the Contractor.

The Contractor shall recheck all top and invert elevations of the sewer lines for the project at least 7 days prior to start of work, but after any surcharged manholes have been pumped down. Copies of field notes shall be turned over to the Engineer for review.

When the Contractor is laying pipe, the minimum depth of burial shall be 3' unless otherwise designated on the plans and the final grade shall be established utilizing top of pipe for water mains and pipe inverts for sewer mains.

Failure to perform this work will not relieve the Contractor from responsibility for checking and adjusting pipeline grades.

(28) NOISE AND DUST CONTROL

The Contractor shall so conduct all his operations that they will cause the least annoyance to the residents in the vicinity of the work, and shall comply with all applicable laws. Vehicles carrying rock, concrete, or other material shall be routed over such streets as will cause the least annoyance to the public and shall not be operated on public streets between the hours of 8 p.m. and 7 a.m. or on Sundays or legal holidays unless the Contractor obtains written permission from appropriate agencies within the municipality (ies) in which the work is to be conducted.

During the contract period, all unpaved streets, roads, detours, haul roads, or roads used in the construction area shall be thoroughly watered a minimum of 3 times per day or more, as directed by the Engineer if the minimum requirement is not sufficient to prevent dust. Applicable environmental regulations for dust prevention shall be strictly enforced.

(29) STREET CLEANUP DURING CONSTRUCTION

Tracking or dropping of dirt or other materials from the site onto any public or private street shall be minimized. The Contractor shall clean all spilled dirt, gravel, or other foreign material caused by the construction operations from all streets and roads at the conclusion of each day's operation.

(30) TRAFFIC CONTROL/MAINTENANCE OF TRAFFIC

Failure to provide adequate Traffic Control/Maintenance of Traffic in accordance with MUTCD, especially in non-working hours shall be cause for withholding all or part of monthly payment applications.

The contractor shall provide and place a minimum of 4" of compacted aggregate/crushed limestone in all trench excavations after backfilling operations have been completed. These aggregate surfaces shall be maintained daily during the entire project to provide a smooth riding surface free of potholes, ruts, etc. Aggregate/crushed limestone used for maintenance of the roadway is to be installed at no additional payment to the Contractor. All items necessary for continuous maintenance of roadway, driveway entrances, etc. shall be included in the Maintenance of Traffic pay item and shall not be measured for separate payment. Crushed limestone, if used, shall meet the requirements of limestone base as specified in Section 22.

During the course of the work, disputes resulting from damage to vehicles due to poor maintenance of traffic and/or traffic control in the work area shall be the responsibility of the contractor to resolve.

The Contractor will not be allowed to close roads and detour traffic unless the Contractor has obtained written permission by the Owner allowing for the closure and the detour. The contractor shall submit a traffic control plan to the Engineer and Owner for approval prior to closing any roads. A copy of the initial Traffic Control Plan must be provided to the Engineer for review. The Plan must define all detour routes using street names, traffic control devices, estimated length of time required for detour, and any other information requested by Owner. The Plan shall be updated as necessary as construction continues across the project area. Failure to provide adequate Maintenance of Traffic shall be cause to withhold all or part of monthly payment applications.

Unless otherwise authorized, all roads and entrances to adjacent property will be kept accessible to through and local traffic.

Whenever and wherever it is reasonably safe to do so, streets will remain open to traffic. When necessary to completely close a section of street, the Contractor shall publish a notice of street closure and a designated detour route in the local newspaper for 48 hours in advance of the road closure. Contractor shall also provide 48 hours advance notification to the local fire department, police department, traffic control and safety department and all local emergency services. Contractor shall also contact the Public School Transportation department, U.S. Postal Service and the waste disposal contractors to coordinate and provide for uninterruptable services. Should a street remain closed for an extended period, the Contractor shall contact all affected parties and publish notifications each day to provide an update on the status of the road closure, detours and availability of providing services.

If the contractor doesn't provide adequate Maintenance of Traffic duties during the course of the project, he shall be subject to "liquidated damages" in the amount of \$350/day for

breach of contract. The Engineer or his representative shall determine compliance with these specifications and, in the case of non-compliance, shall notify the Contractor, in writing, of the project areas that require immediate attention. Should the contractor fail to initiate appropriate actions within 4 hours of written notice of non-compliance and satisfactorily perform the responsibilities of Maintenance of Traffic, the penalty amount of \$350/day shall accrue until the deficiencies are corrected. Any accrued damages amounts shall be deducted from monthly payment applications. Regardless of notification from the Engineer, should the actual damages for failure to provide Maintenance of Traffic exceed the "liquidated damages" withheld, the difference will be additionally withheld.

BID PROPOSAL

(Bidder must submit one copy and one original with his bid)

Proposal of
(hereinafter called "Bidder"), organized and existing under the laws of the State of
doing business as*.
To the City of Pass Christian, Mississippi (hereinafter called "Owner").
Gentlemen:
The Bidder, in compliance with your invitation for bids for:
INSTALLATION OF COMMERCIAL REMOTE READING WATER METERS
having examined the specifications with related documents and the site of the proposed work, and being familiar with all of the conditions surrounding the proposed project including the availability of materials and labor, hereby proposes to furnish all materials, labor, tools, and services in accordance with the Contract Documents, within the time set forth therein, and at the prices stated below. These prices are to cover all expenses incurred in performing the work required under the Contract Documents, of which this proposal is a part.
Bidder hereby agrees to deliver the equipment as specified herein within 90 calendar days of receipt of Owner's purchase order.
Bidder acknowledges receipt of the following addendum:

^{*}Insert corporation, partnership or individual as applies

Bidder agrees to perform all the work described in the specifications and shown on the plans, at the following Unit Prices:

	ITEM		
NO.	DESCRIPTION	QUANTITY	EXTENSION
1-A	Remove and Replace 3/4" Water Meter w/ Remote Register	97 EA	
			\$
	(UNIT PRICE IN WORDS)		(EXTENSION IN FIGURES
	(UNIT PRICE IN WORDS)	(\$ (UNIT PRICE IN FIGURE)
1-B	Remove and Replace 1" Water Meter w/ Remote Register	16 EA	
		(\$	
1-C	Remove and Replace 1-1/2" Water Meter w/ Remote Register	10 EA	. \$
		(\$	
1-D	Remove and Replace 2" Water Meter w/ Remote Register	12 EA	. \$
		(\$	
1-E	Remove and Replace 3" Water Meter w/ Remote Register	1 EA	. \$
		(\$	

1-F	Remove and Replace 4" Water Meter w/ Remote Register		3	EA.	
					\$
		(\$)
1-G	Remove and Replace 6" Water Meter w/ Remote Register		2	EA.	\$
		(\$)
1-H	Drilling Hole in Meter Box Lid		141	EA.	¢.
		(\$. \$ <u>. </u>)
1-I	Adjusting Water Meter Boxes to Grade		50	EA.	\$
		(\$)
1-J	Replace Plastic Meter Box Lid		100	EA.	\$
		(\$)
2-A	Drive-By Remote Reading Unit		2	EA.	\$
		(\$			

3-A	System Set-Up and Training		1	L.S.		\$
		(\$				Ψ
3-B	Annual Software Maintenance		3	YRS		\$
		(\$			_	
4-A	Limestone Base Restoration		100	SF		\$
		(\$				
4-B	2" Hot Bituminous Surface Course (9.5 mm Mixture)		100	SF		\$
		(\$				
4-C	4" Hot Bituminous Base Course (19.0 mm Mixture)		100	SF	_	\$_
		(\$			_)	
4-D	Concrete Sidewalk Restoration		100	SF	_	\$_
		(\$)	

4-E	Concrete Restoration (Includes driveways, aprons, islands, etc.)		100	SF		\$
		(\$			_)	
4-F	Granular Drive Restoration		50	SF		\$
		(\$				
4-G	Vegetative Cover (Seeding)		50	SF		\$_
		(\$			_)	
4-H	Solid Sod		100	SF	_	\$
		(\$)	

TOTAL BASE BID		
	(\$)
(AMOUNTS ARE TO BE IN WORDS AND FIGURES. IN C SHOWN IN WORDS WILL GOVERN.	ASE OF DISCREPANCY, THE AMOUNT	
Bidder understands that the Owner reserves the right to reje	ect any or all bids.	
The Bidder agrees that this bid shall be good and may not be days after the scheduled closing time for receiving bids.	pe withdrawn for a period of 90 calendar	
	Respectfully submitted:	
	Ву	
	Title	
	(SEAL - if bid is by corporation)	
Address:		

BID BOND

Any singular reference to Bidder, Surety, Owner, or other party shall be considered plural where applicable.

(Figures) o the terms printed on the reverse side hereof, do each
-
-
-
-
ized officer, agent, or representative.
RETY
(Seal)
urety's Name and Corporate Seal
u.
y: ignature and Title Attach Power of Attorney)
ttest:
ttest: ignature and Title
S S (

EJCDC NO. C-430 (2002 Edition)

00430-3

- 1. Bidder and Surety, jointly and severally, bind themselves, their heirs, executors, administrators, successors and assigns to pay to Owner upon default of Bidder the penal sum set forth on the face of this Bond. Payment of the penal sum is the extent of Surety's liability.
- 2. Default of Bidder shall occur upon the failure of Bidder to deliver within the time required by the Bidding Documents (or any extension thereof agreed to in writing by Owner) the executed Agreement required by the Bidding Documents and any performance and payment bonds required by the Bidding Documents.
- 3. This obligation shall be null and void if:
 - 3.1. Owner accepts Bidder's Bid and Bidder delivers within the time required by the Bidding Documents (or any extension thereof agreed to in writing by Owner) the executed Agreement required by the Bidding Documents and any performance and payment bonds required by the Bidding Documents, or
 - 3.2. All Bids are rejected by Owner, or
 - 3.3. Owner fails to issue a Notice of Award to Bidder within the time specified in the Bidding Documents (or any extension thereof agreed to in writing by Bidder and, if applicable, consented to by Surety when required by Paragraph 5 hereof).
- 4. Payment under this Bond will be due and payable upon default by Bidder and within 30 calendar days after receipt by Bidder and Surety of written notice of default from Owner, which notice will be given with reasonable promptness, identifying this Bond and the Project and including a statement of the amount due.
- 5. Surety waives notice of any and all defenses based on or arising out of any time extension to issue Notice of Award agreed to in writing by Owner and Bidder, provided that the total time for issuing Notice of Award including extensions shall not in the aggregate exceed 120 days from Bid due date without Surety's written consent.
- 6. No suit or action shall be commenced under this Bond prior to 30 calendar days after the notice of default required in Paragraph 4 above is received by Bidder and Surety and in no case later than one year after Bid due date.

- 7. Any suit or action under this Bond shall be commenced only in a court of competent jurisdiction located in the state in which the Project is located.
- 8. Notices required hereunder shall be in writing and sent to Bidder and Surety at their respective addresses shown on the face of this Bond. Such notices may be sent by personal delivery, commercial courier, or by United States Registered or Certified Mail, return receipt requested, postage pre-paid, and shall be deemed to be effective upon receipt by the party concerned.
- 9. Surety shall cause to be attached to this Bond a current and effective Power of Attorney evidencing the authority of the officer, agent, or representative who executed this Bond on behalf of Surety to execute, seal, and deliver such Bond and bind the Surety thereby.
- 10. This Bond is intended to conform to all applicable statutory requirements. Any applicable requirement of any applicable statute that has been omitted from this Bond shall be deemed to be included herein as if set forth at length. If any provision of this Bond conflicts with any applicable statute, then the provision of said statute shall govern and the remainder of this Bond that is not in conflict therewith shall continue in full force and effect.
- 11. The term "Bid" as used herein includes a Bid, offer, or proposal as applicable.

EJCDC STANDARD FORM OF AGREEMENT BETWEEN OWNER AND CONTRACTOR ON THE BASIS OF A STIPULATED PRICE

THIS AGREEMENT is dated as of	the day of in	the year 2020 by and between
The City of Pass Christian, 200 West	Scenic Drive, Pass Christian, MS 3957	'1 (hereinafter
called OWNER) and		
$(herein after\ called\ CONTRACTOR).$		
OWNER and CONTRACTOR, in con	nsideration of the mutual covenants here	einafter set forth, agree as follows
Article 1. WORK.		
CONTRACTOR shall complete all W generally described as follows:	Vork as specified or indicated in the Co	entract Documents. The Work is
Installation of Commercial Re	emote Reading Water Meters	
The Project for which the Work under scribed as follows:	the contract Documents may be the wh	hole or only part is generally de-
Entire Project		
Article 2. ENGINEER.		
The Project has been designed by:	Overstreet & Associates, PLLC 161 Lameuse Street, Suite 203 Biloxi, MS 39530	

who is hereinafter called ENGINEER and who is to act as OWNER's representative, assume all duties and responsibilities and have the rights and authority assigned to ENGINEER in the Contract Documents in connection with completion of the Work in accordance with the Contract Documents.

Article 3. CONTRACT TIMES.

- 3.1 The Work will be substantially completed on or before _______, ____, and completed and ready for final payment in accordance with paragraph 14.13 of the General Conditions on or before ______, ____.
- 3.1 The Work will be fully completed within <u>90</u> days after the date when the Contract Times commence to run as provided in paragraph 2.03 of the General Conditions, and completed and ready for final payment in accordance with paragraph 14.07 of the General Conditions within <u>90</u> days after the date when the Contract Times commence to run.
- 3.2 Liquidated Damages. OWNER and CONTRACTOR recognize that time is of the essence of this Agreement and that OWNER will suffer financial loss if the Work is not completed within the times specified in paragraph 3.1 above, plus any extensions thereof allowed in accordance with Article 12 of the General Conditions. They also recognize the delays, expense and difficulties involved in proving the actual loss suffered by OWNER if the Work is not completed on time. Accordingly, instead of requiring any such proof, OWNER and CONTRACTOR agree that as liquidated damages for delay (but not as a penalty) CONTRACTOR shall pay OWNER ______ two Hundred ------- dollars (\$ 200.00 _) for each day that expires after the time specified in paragraph 3.1 for Contract Completion and readiness for final payment.

Article 4. CONTRACT PRICE.

OWNER shall pay CONTRACTOR for completion of the Work in accordance with the Contract Documents an amount in current funds equal to the sum of the amounts determined pursuant to paragraphs 4.1 and 4.2 below:

4.1 for all Work other than Unit Price Work, a Lump Sum of:

LUMP SUM WORK.

All specific cash allowances are included in the above price and have been computed in accordance with paragraphs 11.02 of the General Conditions;

plus

4.2 for all Unit Price Work, an amount equal to the sum of the established unit price for each separately identified item of Unit Price Work times the estimated quantity of that item as indicated in this paragraph 4.2:

As provided in paragraph 11.03 of the General Conditions estimated quantities are not guaranteed, and determinations of actual quantities and classification are to be made by ENGINEER as provided in paragraph 9.07 of the General Conditions. Unit prices have been computed as provided in paragraph 11.03.C. of the General Conditions.

Article 5. PAYMENT PROCEDURES.

CONTRACTOR shall submit Applications for Payment in accordance with Article 14 of the General Conditions. Applications for Payment will be processed by ENGINEER as provided in the General Conditions.

- 5.1. *Progress Payments; Retainage*. OWNER shall make progress payments on account of the Contract Price on the basis of CONTRACTOR's Applications for Payment as recommended by ENGINEER, within 30 days of approval for payment by the Owner, as provided in paragraphs 5.1.1. and 5.1.2. below. All such payments will be measured by the schedule of values established in paragraph 2.07 of the General Conditions (and in the case of Unit Price Work based on the number of units completed) or, in the event there is no schedule of values, as provided in the General Requirements.
 - 5.1.1. Prior to Contract Completion, progress payments will be made in an amount equal to the percentage indicated below, but, in each case, less the aggregate of payments previously made and less such amounts as ENGINEER shall determine, or OWNER may withhold, in accordance with paragraph 14.02.B.5 of the General Conditions.
 - ____95___% of Work completed and materials and equipment delivered and stored per paragraph 14.02 of the General Conditions (with the balance being retainage). If Work has been 50% completed as determined by ENGINEER, and if the character and progress of the Work have been satisfactory to OWNER and ENGINEER, OWNER, on recommendation of ENGINEER, may determine to return 50% of the retainage held to date, and the remaining progress payments prior to Contract Completion will be in an amount equal to 97.5% of the Work completed (with balance being retainage).
 - 5.1.2. Upon Completion of a portion of the project, in an amount sufficient to increase total payments to CONTRACTOR to ____98 ___% of the Contract Price (with the balance being retainage), less such amounts as ENGINEER shall determine, or OWNER may withhold, in accordance with paragraph 14.02.B.5 of the General Conditions.
 - 5.1.3 Contractors shall submit monthly certification to ENGINEER indicating payments to subcontractors on prior payment requests.
- 5.2. *Final Payment*. Upon final completion and acceptance of the Work in accordance with paragraph 14.07 of the General Conditions, OWNER shall pay the remainder of the Contract Price as recommended by ENGINEER as provided in said paragraph 14.07.

Article 6. INTEREST.

All moneys not paid when due as provided in Article 14 of the General Conditions shall bear interest at the maximum rate allowed by law at the place of the Project.

Article 7. CONTRACTOR'S REPRESENTATIONS.

In order to induce OWNER to enter into this Agreement CONTRACTOR makes the following representations:

- 7.1. CONTRACTOR has examined and carefully studied the Contract Documents (including the Addenda listed in paragraph 8) and the other related data identified in the Bidding Documents including "technical data."
- 7.2. CONTRACTOR has visited the site and become familiar with and is satisfied as to the general, local and site conditions that may affect cost, progress, performance or furnishing of the Work.
- 7.3. CONTRACTOR is familiar with and is satisfied as to all federal, state and local Laws and Regulations that may affect cost, progress, performance and furnishing of the Work.
- 7.4. CONTRACTOR has carefully studied all reports of explorations and tests of subsurface conditions at or contiguous to the site and all drawings of physical conditions in or relating to existing surface or subsurface structures at or contiguous to the site (except Underground Facilities) which have been identified in the Supplementary Conditions as provided in paragraph 4.02.A of the General Conditions. CONTRACTOR accepts the determination set forth in paragraph N of the Supplementary Conditions of the extent of the "technical data" contained in such reports and drawings upon which CONTRACTOR is entitled to rely as provided in paragraph 4.02 of the General Conditions. CONTRACTOR acknowledges that such reports and drawings are not Contract Documents and may not be complete for CON-TRACTOR's purposes. CONTRACTOR acknowledges that OWNER and ENGINEER do not assume responsibility for the accuracy or completeness of information and data shown or indicated in the Contract Documents with respect to Underground Facilities at or contiguous to the site. CONTRACTOR has obtained and carefully studied (or assumes responsibility for having done so) all such additional supplementary examinations, investigations, explorations, tests, studies and data concerning conditions (surface, subsurface and Underground Facilities) at or contiguous to the site or otherwise which may affect cost, progress, performance or furnishing of the Work of which relate to any aspect of the means, methods, techniques, sequences and procedures of construction to be employed by CONTRACTOR and safety precautions and programs incident thereto. CONTRACTOR does not consider that any additional examinations, investigations, explorations, tests, studies or data are necessary for the performance and furnishing of the Work at the Contract Price, within the Contract Times and in accordance with the other terms and conditions of the Contract Documents.
- 7.5. CONTRACTOR is aware of the general nature of work to be performed by OWNER and others at the site that relates to the Work as indicated in the Contract Documents.
- 7.6. CONTRACTOR has correlated the information known to CONTRACTOR, information and observations obtained from visits to the site, reports and drawings identified in the Contract Documents and all additional examinations, investigations, explorations, tests, studies and data with the Contract Documents.
- 7.7. CONTRACTOR has given ENGINEER written notice of all conflicts, errors, ambiguities or discrepancies that CONTRACTOR has discovered in the Contract Documents and the written resolution thereof by ENGINEER is acceptable to CONTRACTOR, and the Contract Documents are generally

sufficient to indicate and convey understanding of all terms and conditions for performance and furnishing of the Work.

Article 8. CONTRACT DOCUMENTS.

The Contract Documents which comprise the entire agreement between OWNER and CONTRACTOR concerning the Work consist of the following:

- 8.1. This Agreement (pages 1 to 8, inclusive).
- 8.2. Information to Bidders (pages 1 to 13, inclusive)
- 8.3. Exhibits to this Agreement. None
- 8.4. Performance, Payment, and other Bonds.
- 8.5. Notice of Award
- 8.6. Notice to Proceed.
- 8.7. General Conditions (pages 1 to 68, inclusive), with Exhibit GC-A.
- 8.8. Supplemental Conditions (pages 1 to 9, inclusive).
- 8.9. Special Conditions (pages 1 to 7, inclusive).
- 8.10. Specifications bearing the title *Technical Specifications* and consisting of the divisions as listed in the table of contents thereof.
- 8.11. Drawings: None
- 8.12. Addenda:
- 8.13. CONTRACTOR's Bid (pages 1 to 6, inclusive).
- 8.14. Documentation submitted by CONTRACTOR prior to Notice of Award:
- 8.15. The following which may be delivered or issued after the Effective Date of the Agreement and are not attached hereto: All Written Amendments and other documents amending, modifying or supplementing the Contract Documents pursuant to paragraph 3.04 of the General Conditions.

The documents listed in paragraphs 8.2 et seq. above are attached to this Agreement (except as expressly noted otherwise above).

There are no Contract Documents other than those listed above in this Article 8. The Contract Documents may only be amended, modified or supplemented as provided in paragraph 3.04 of the General Conditions.

Article 9. MISCELLANEOUS.

9.1. Terms used in this Agreement which are defined in Article 1 of the General Conditions will have the meanings indicated in the General Conditions.

- 9.2. No assignment by a party hereto of any rights under or interests in the Contract Documents will be binding on another party hereto without the written consent of the party sought to be bound; and specifically but without limitation, moneys that may become due and moneys that are due may not be assigned without such consent (except to the extent that the effect of this restriction may be limited by law), and unless specifically stated to the contrary in any written consent to an assignment money assignment will release or discharge the assignor from any duty or responsibility under the Contract Documents.
- 9.3. OWNER and CONTRACTOR each binds itself, its partners, successors, assigns and legal representatives to the other party hereto, its partners, successors, assigns and legal representatives in respect to all covenants, agreements and obligations contained in the Contract Documents.
- 9.4. Any provision or part of the Contract Documents held to be void or unenforceable under any Law or Regulation shall be deemed stricken, and all remaining provisions shall continue to be valid and binding upon OWNER and CONTRACTOR, who agree that the Contract Documents shall be reformed to replace such stricken provision or part thereof with a valid and enforceable provision that comes as close as possible to expressing the intention of the stricken provision.

9.5 OTHER PROVISIONS.

IN WITNESS WHEREOF, OWNER and CONTRACTOR have signed this Agreement in triplicate. One counterpart each has been delivered to OWNER, CONTRACTOR and ENGINEER. All portions of the Contract Documents have been signed, initialed or identified by OWNER and CONTRACTOR or identified by ENGINEER on their behalf.

This Agreement will be effective on of the Agreement).	,, (which is the Effective Date
OWNER	CONTRACTOR:
Kiln Utility and Fire District of Hancock County	
By: Patricia Cuevas, Chairman	By:
[CORPORATE SEAL]	[CORPORATE SEAL]
Attest	Attest
Address for giving notices	Address for giving notices
P. O. Box 508	
Kiln, MS 39556	
(If OWNER is a public body, attach evidence of	License No
authority to sign and resolution or other documents authorizing execution of Agreement.)	Agency for service of process:
	(If CONTRACTOR is a corporation, attach evidence of authority to sign.)

PERFORMANCE BOND

Any singular reference to Contractor, Surety, Owner, or other party shall be considered plural where applicable.

CONTRACTOR (Name and Address):	SURETY (Name and Address of Principal Place of Business):
OWNER (Name and Address):	
CONTRACT Date: Amount: Description (Name and Location):	
BOND Bond Number: Date (Not earlier than Contract Date): Amount: Modifications to this Bond Form:	
Surety and Contractor, intending to be legally bound hereby, a Performance Bond to be duly executed on its behalf by its aut	subject to the terms printed on the reverse side hereof, do each cause thi horized officer, agent, or representative.
CONTRACTOR AS PRINCIPAL Company:	SURETY
Signature: (Seal) Name and Title:	Surety's Name and Corporate Seal (Seal)
(Space is provided below for signatures of additional	By: Signature and Title (Attach Power of Attorney)
parties, if required.)	Attest: Signature and Title
CONTRACTOR AS PRINCIPAL Company:	SURETY
Signature: (Seal) Name and Title:	Surety's Name and Corporate Seal (Seal)
	By: Signature and Title (Attach Power of Attorney)
	Attest: Signature and Title:

EJCDC No. C-610 (2002 Edition)

Originally prepared through the joint efforts of the Surety Association of America, Engineers Joint Contract Documents Committee, the Associated General Contractors of America, and the American Institute of Architects.

- 1. Contractor and Surety, jointly and severally, bind themselves, their heirs, executors, administrators, successors, and assigns to Owner for the performance of the Contract, which is incorporated herein by reference.
- 2. If Contractor performs the Contract, Surety and Contractor have no obligation under this Bond, except to participate in conferences as provided in Paragraph 3.1.
- 3. If there is no Owner Default, Surety's obligation under this Bond shall arise after:
 - 3.1. Owner has notified Contractor and Surety, at the addresses described in Paragraph 10 below, that Owner is considering declaring a Contractor Default and has requested and attempted to arrange a conference with Contractor and Surety to be held not later than 15 days after receipt of such notice to discuss methods of performing the Contract. If Owner, Contractor and Surety agree, Contractor shall be allowed a reasonable time to perform the Contract, but such an agreement shall not waive Owner's right, if any, subsequently to declare a Contractor Default; and
 - 3.2. Owner has declared a Contractor Default and formally terminated Contractor's right to complete the Contract. Such Contractor Default shall not be declared earlier than 20 days after Contractor and Surety have received notice as provided in Paragraph 3.1; and
 - 3.3. Owner has agreed to pay the Balance of the Contract Price to:
 - 1. Surety in accordance with the terms of the Contract;
 - Another contractor selected pursuant to Paragraph 4.3 to perform the Contract.
- 4. When Owner has satisfied the conditions of Paragraph 3, Surety shall promptly and at Surety's expense take one of the following actions:
 - Arrange for Contractor, with consent of Owner, to perform and complete the Contract; or
 - 4.2. Undertake to perform and complete the Contract itself, through its agents or through independent contractors; or
 - 4.3. Obtain bids or negotiated proposals from qualified contractors acceptable to Owner for a contract for performance and completion of the Contract, arrange for a contract to be prepared for execution by Owner and Contractor selected with Owner's concurrence, to be secured with performance and payment bonds executed by a qualified surety equivalent to the bonds issued on the Contract, and pay to Owner the amount of damages as described in Paragraph 6 in excess of the Balance of the Contract Price incurred by Owner resulting from Contractor Default; or
 - 4.4. Waive its right to perform and complete, arrange for completion, or obtain a new contractor and with reasonable promptness under the circumstances:
 - After investigation, determine the amount for which it may be liable to Owner and, as soon as practicable after the amount is determined, tender payment therefor to Owner; or
 - 2. Deny liability in whole or in part and notify Owner citing reasons therefor.
- 5. If Surety does not proceed as provided in Paragraph 4 with reasonable promptness, Surety shall be deemed to be in default on this Bond 15 days after receipt of an additional written notice from Owner to Surety demanding that Surety perform its obligations under this Bond, and Owner shall be entitled to enforce any remedy available to Owner. If Surety proceeds as provided in Paragraph 4.4, and Owner refuses the payment tendered or Surety has denied liability, in whole or in part, without further notice Owner shall be entitled to enforce any remedy available to Owner.

- 6. After Owner has terminated Contractor's right to complete the Contract, and if Surety elects to act under Paragraph 4.1, 4.2, or 4.3 above, then the responsibilities of Surety to Owner shall not be greater than those of Contractor under the Contract, and the responsibilities of Owner to Surety shall not be greater than those of Owner under the Contract. To a limit of the amount of this Bond, but subject to commitment by Owner of the Balance of the Contract Price to mitigation of costs and damages on the Contract, Surety is obligated without duplication for:
 - 6.1. The responsibilities of Contractor for correction of defective Work and completion of the Contract;
 - 6.2. Additional legal, design professional, and delay costs resulting from Contractor's Default, and resulting from the actions or failure to act of Surety under Paragraph 4; and
 - 6.3. Liquidated damages, or if no liquidated damages are specified in the Contract, actual damages caused by delayed performance or nonperformance of Contractor.
- 7. Surety shall not be liable to Owner or others for obligations of Contractor that are unrelated to the Contract, and the Balance of the Contract Price shall not be reduced or set off on account of any such unrelated obligations. No right of action shall accrue on this Bond to any person or entity other than Owner or its heirs, executors, administrators, or successors.
- 8. Surety hereby waives notice of any change, including changes of time, to Contract or to related subcontracts, purchase orders, and other obligations.
- 9. Any proceeding, legal or equitable, under this Bond may be instituted in any court of competent jurisdiction in the location in which the Work or part of the Work is located and shall be instituted within two years after Contractor Default or within two years after Contractor ceased working or within two years after Surety refuses or fails to perform its obligations under this Bond, whichever occurs first. If the provisions of this paragraph are void or prohibited by law, the minimum period of limitation available to sureties as a defense in the jurisdiction of the suit shall be applicable.
- 10. Notice to Surety, Owner, or Contractor shall be mailed or delivered to the address shown on the signature page.
- 11. When this Bond has been furnished to comply with a statutory requirement in the location where the Contract was to be performed, any provision in this Bond conflicting with said statutory requirement shall be deemed deleted herefrom and provisions conforming to such statutory requirement shall be deemed incorporated herein. The intent is that this Bond shall be construed as a statutory bond and not as a common law bond.

12. Definitions.

- 12.1 Balance of the Contract Price: The total amount payable by Owner to Contractor under the Contract after all proper adjustments have been made, including allowance to Contractor of any amounts received or to be received by Owner in settlement of insurance or other Claims for damages to which Contractor is entitled, reduced by all valid and proper payments made to or on behalf of Contractor under the Contract.
- 12.2. Contract: The agreement between Owner and Contractor identified on the signature page, including all Contract Documents and changes thereto.
- 12.3. Contractor Default: Failure of Contractor, which has neither been remedied nor waived, to perform or otherwise to comply with the terms of the Contract.
- 12.4. Owner Default: Failure of Owner, which has neither been remedied nor waived, to pay Contractor as required by the Contract or to perform and complete or comply with the other terms thereof.

FOR INFORMATION ONLY – Name, Address and Telephone Surety Agency or Broker Owner's Respresentative (engineer or other party)

PAYMENT BOND

Any singular reference to Contractor, Surety, Owner, or other party shall be considered plural where applicable.

CONTRACTOR (Name and Address):	SURETY (Name and Address of Principal Place of Business):
OWNER (Name and Address):	
CONTRACT Date:	
Amount: Description (Name and Location):	
BOND Bond Number: Date (Not earlier than Contract Date): Amount:	
Modifications to this Bond Form:	
Surety and Contractor, intending to be legally bound h Payment Bond to be duly executed on its behalf by its	nereby, subject to the terms printed on the reverse side hereof, do each cause this authorized officer, agent, or representative.
CONTRACTOR AS PRINCIPAL Company:	SURETY
Signature: (So Name and Title:	eal) Surety's Name and Corporate Seal (Seal)
Name and Title.	By:
	Signature and Title
(Space is provided below for signatures of add parties, if required.)	(Attach Power of Attorney) itional
	Attest: Signature and Title
CONTRACTOR AS PRINCIPAL Company:	SURETY
	eal) (Seal)
Name and Title:	Surety's Name and Corporate Seal
	By:
	Signature and Title (Attach Power of Attorney)
	Attest:
	Signature and Title:

EJCDC No. C-615 (2002 Edition)

Originally prepared through the joint efforts of the Surety Association of America, Engineers Joint Contract Documents Committee, the Associated General Contractors of America, the American Institute of Architects, the American Subcontractors Association, and the Associated Specialty Contractors.

- 1. Contractor and Surety, jointly and severally, bind themselves, their heirs, executors, administrators, successors, and assigns to Owner to pay for labor, materials, and equipment furnished by Claimants for use in the performance of the Contract, which is incorporated herein by reference.
- 2. With respect to Owner, this obligation shall be null and void if Contractor:
 - Promptly makes payment, directly or indirectly, for all sums due Claimants, and
 - 2.2. Defends, indemnifies, and holds harmless Owner from all claims, demands, liens, or suits alleging non-payment by Contractor by any person or entity who furnished labor, materials, or equipment for use in the performance of the Contract, provided Owner has promptly notified Contractor and Surety (at the addresses described in Paragraph 12) of any claims, demands, liens, or suits and tendered defense of such claims, demands, liens, or suits to Contractor and Surety, and provided there is no Owner Default.
- 3. With respect to Claimants, this obligation shall be null and void if Contractor promptly makes payment, directly or indirectly, for all sums due.
- 4. Surety shall have no obligation to Claimants under this Bond until:
 - 4.1. Claimants who are employed by or have a direct contract with Contractor have given notice to Surety (at the addresses described in Paragraph 12) and sent a copy, or notice thereof, to Owner, stating that a claim is being made under this Bond and, with substantial accuracy, the amount of the claim.
 - 4.2. Claimants who do not have a direct contract with Contractor:
 - Have furnished written notice to Contractor and sent a copy, or notice thereof, to Owner, within 90 days after having last performed labor or last furnished materials or equipment included in the claim stating, with substantial accuracy, the amount of the claim and the name of the party to whom the materials or equipment were furnished or supplied, or for whom the labor was done or performed; and
 - Have either received a rejection in whole or in part from Contractor, or not received within 30 days of furnishing the above notice any communication from Contractor by which Contractor had indicated the claim will be paid directly or indirectly; and
 - 3. Not having been paid within the above 30 days, have sent a written notice to Surety and sent a copy, or notice thereof, to Owner, stating that a claim is being made under this Bond and enclosing a copy of the previous written notice furnished to Contractor.
- 5. If a notice by a Claimant required by Paragraph 4 is provided by Owner to Contractor or to Surety, that is sufficient compliance.
- 6. When a Claimant has satisfied the conditions of Paragraph 4, the Surety shall promptly and at Surety's expense take the following actions:
 - 6.1. Send an answer to that Claimant, with a copy to Owner, within 45 days after receipt of the claim, stating the amounts that are undisputed and the basis for challenging any amounts that are disputed.
 - 6.2. Pay or arrange for payment of any undisputed amounts.
- 7. Surety's total obligation shall not exceed the amount of this Bond, and the amount of this Bond shall be credited for any payments made in good faith by Surety.

- 8. Amounts owed by Owner to Contractor under the Contract shall be used for the performance of the Contract and to satisfy claims, if any, under any performance bond. By Contractor furnishing and Owner accepting this Bond, they agree that all funds earned by Contractor in the performance of the Contract are dedicated to satisfy obligations of Contractor and Surety under this Bond, subject to Owner's priority to use the funds for the completion of the Work.
- 9. Surety shall not be liable to Owner, Claimants, or others for obligations of Contractor that are unrelated to the Contract. Owner shall not be liable for payment of any costs or expenses of any Claimant under this Bond, and shall have under this Bond no obligations to make payments to, give notices on behalf of, or otherwise have obligations to Claimants under this Bond.
- 10. Surety hereby waives notice of any change, including changes of time, to the Contract or to related Subcontracts, purchase orders and other obligations.
- 11. No suit or action shall be commenced by a Claimant under this Bond other than in a court of competent jurisdiction in the location in which the Work or part of the Work is located or after the expiration of one year from the date (1) on which the Claimant gave the notice required by Paragraph 4.1 or Paragraph 4.2.3, or (2) on which the last labor or service was performed by anyone or the last materials or equipment were furnished by anyone under the Construction Contract, whichever of (1) or (2) first occurs. If the provisions of this paragraph are void or prohibited by law, the minimum period of limitation available to sureties as a defense in the jurisdiction of the suit shall be applicable.
- 12. Notice to Surety, Owner, or Contractor shall be mailed or delivered to the addresses shown on the signature page. Actual receipt of notice by Surety, Owner, or Contractor, however accomplished, shall be sufficient compliance as of the date received at the address shown on the signature page.
- 13. When this Bond has been furnished to comply with a statutory requirement in the location where the Contract was to be performed, any provision in this Bond conflicting with said statutory requirement shall be deemed deleted herefrom and provisions conforming to such statutory requirement shall be deemed incorporated herein. The intent is that this Bond shall be construed as a statutory Bond and not as a common law bond.
- 14. Upon request of any person or entity appearing to be a potential beneficiary of this Bond, Contractor shall promptly furnish a copy of this Bond or shall permit a copy to be made.

15. DEFINITIONS

- 15.1. Claimant: An individual or entity having a direct contract with Contractor, or with a first-tier subcontractor of Contractor, to furnish labor, materials, or equipment for use in the performance of the Contract. The intent of this Bond shall be to include without limitation in the terms "labor, materials or equipment" that part of water, gas, power, light, heat, oil, gasoline, telephone service, or rental equipment used in the Contract, architectural and engineering services required for performance of the Work of Contractor and Contractor's Subcontractors, and all other items for which a mechanic's lien may be asserted in the jurisdiction where the labor, materials, or equipment were furnished.
- 15.2. Contract: The agreement between Owner and Contractor identified on the signature page, including all Contract Documents and changes thereto.
- 15.3. Owner Default: Failure of Owner, which has neither been remedied nor waived, to pay Contractor as required by the Contract or to perform and complete or comply with the other terms thereof.

FOR INFORMATION ONLY – Name, Address and Telephone Surety Agency or Broker:
Owner's Representative (engineer or other party):

TECHNICAL SPECIFICATIONS

ITEM NO. 1	WATER METER
ITEM NO. 2	WATER METER INSTALLATION
ITEM NO. 3	DRIVE-BY READING UNIT
ITEM NO. 4	RESTORATION OF DISTURBED FACILITIES

This document has important legal consequences; consultation with an attorney is encouraged with respect to its use or modification. This document should be adapted to the particular circumstances of the contemplated Project and the controlling Laws and Regulations.

STANDARD GENERAL CONDITIONS OF THE CONSTRUCTION CONTRACT

Prepared by

ENGINEERS JOINT CONTRACT DOCUMENTS COMMITTEE

and

Issued and Published Jointly by









AMERICAN COUNCIL OF ENGINEERING COMPANIES

ASSOCIATED GENERAL CONTRACTORS OF AMERICA

AMERICAN SOCIETY OF CIVIL ENGINEERS

PROFESSIONAL ENGINEERS IN PRIVATE PRACTICE

A Practice Division of the

NATIONAL SOCIETY OF PROFESSIONAL ENGINEERS

These General Conditions have been prepared for use with the Suggested Forms of Agreement Between Owner and Contractor (EJCDC C-520 or C-525, 2007 Editions). Their provisions are interrelated and a change in one may necessitate a change in the other. Comments concerning their usage are contained in the Narrative Guide to the EJCDC Construction Documents (EJCDC C-001, 2007 Edition). For guidance in the preparation of Supplementary Conditions, see Guide to the Preparation of Supplementary Conditions (EJCDC C-800, 2007 Edition).

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Associated General Contractors of America 2300 Wilson Boulevard, Suite 400, Arlington, VA 22201-3308 (703) 548-3118 www.agc.org

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ARTICLE 1 – DEFINITIONS AND TERMINOLOGY

1.01 Defined Terms

- A. Wherever used in the Bidding Requirements or Contract Documents and printed with initial capital letters, the terms listed below will have the meanings indicated which are applicable to both the singular and plural thereof. In addition to terms specifically defined, terms with initial capital letters in the Contract Documents include references to identified articles and paragraphs, and the titles of other documents or forms.
 - 1. Addenda—Written or graphic instruments issued prior to the opening of Bids which clarify, correct, or change the Bidding Requirements or the proposed Contract Documents.
 - 2. *Agreement*—The written instrument which is evidence of the agreement between Owner and Contractor covering the Work.
 - 3. Application for Payment—The form acceptable to Engineer which is to be used by Contractor during the course of the Work in requesting progress or final payments and which is to be accompanied by such supporting documentation as is required by the Contract Documents.
 - 4. Asbestos—Any material that contains more than one percent asbestos and is friable or is releasing asbestos fibers into the air above current action levels established by the United States Occupational Safety and Health Administration.
 - 5. Bid—The offer or proposal of a Bidder submitted on the prescribed form setting forth the prices for the Work to be performed.
 - 6. Bidder—The individual or entity who submits a Bid directly to Owner.
 - 7. Bidding Documents—The Bidding Requirements and the proposed Contract Documents (including all Addenda).
 - 8. *Bidding Requirements*—The advertisement or invitation to bid, Instructions to Bidders, Bid security of acceptable form, if any, and the Bid Form with any supplements.
 - 9. Change Order—A document recommended by Engineer which is signed by Contractor and Owner and authorizes an addition, deletion, or revision in the Work or an adjustment in the Contract Price or the Contract Times, issued on or after the Effective Date of the Agreement.
 - 10. *Claim*—A demand or assertion by Owner or Contractor seeking an adjustment of Contract Price or Contract Times, or both, or other relief with respect to the terms of the Contract. A demand for money or services by a third party is not a Claim.
 - 11. Contract—The entire and integrated written agreement between the Owner and Contractor concerning the Work. The Contract supersedes prior negotiations, representations, or agreements, whether written or oral.
 - 12. Contract Documents—Those items so designated in the Agreement. Only printed or hard copies of the items listed in the Agreement are Contract Documents. Approved Shop

- Drawings, other Contractor submittals, and the reports and drawings of subsurface and physical conditions are not Contract Documents.
- 13. Contract Price—The moneys payable by Owner to Contractor for completion of the Work in accordance with the Contract Documents as stated in the Agreement (subject to the provisions of Paragraph 11.03 in the case of Unit Price Work).
- 14. Contract Times—The number of days or the dates stated in the Agreement to: (i) achieve Milestones, if any; (ii) achieve Substantial Completion; and (iii) complete the Work so that it is ready for final payment as evidenced by Engineer's written recommendation of final payment.
- 15. Contractor—The individual or entity with whom Owner has entered into the Agreement.
- 16. Cost of the Work—See Paragraph 11.01 for definition.
- 17. *Drawings*—That part of the Contract Documents prepared or approved by Engineer which graphically shows the scope, extent, and character of the Work to be performed by Contractor. Shop Drawings and other Contractor submittals are not Drawings as so defined.
- 18. Effective Date of the Agreement—The date indicated in the Agreement on which it becomes effective, but if no such date is indicated, it means the date on which the Agreement is signed and delivered by the last of the two parties to sign and deliver.
- 19. Engineer—The individual or entity named as such in the Agreement.
- 20. Field Order—A written order issued by Engineer which requires minor changes in the Work but which does not involve a change in the Contract Price or the Contract Times.
- 21. General Requirements—Sections of Division 1 of the Specifications.
- 22. *Hazardous Environmental Condition*—The presence at the Site of Asbestos, PCBs, Petroleum, Hazardous Waste, or Radioactive Material in such quantities or circumstances that may present a substantial danger to persons or property exposed thereto.
- 23. *Hazardous Waste*—The term Hazardous Waste shall have the meaning provided in Section 1004 of the Solid Waste Disposal Act (42 USC Section 6903) as amended from time to time.
- 24. Laws and Regulations; Laws or Regulations—Any and all applicable laws, rules, regulations, ordinances, codes, and orders of any and all governmental bodies, agencies, authorities, and courts having jurisdiction.
- 25. *Liens*—Charges, security interests, or encumbrances upon Project funds, real property, or personal property.
- 26. *Milestone*—A principal event specified in the Contract Documents relating to an intermediate completion date or time prior to Substantial Completion of all the Work.

- 27. Notice of Award—The written notice by Owner to the Successful Bidder stating that upon timely compliance by the Successful Bidder with the conditions precedent listed therein, Owner will sign and deliver the Agreement.
- 28. *Notice to Proceed*—A written notice given by Owner to Contractor fixing the date on which the Contract Times will commence to run and on which Contractor shall start to perform the Work under the Contract Documents.
- 29. *Owner*—The individual or entity with whom Contractor has entered into the Agreement and for whom the Work is to be performed.
- 30. PCBs—Polychlorinated biphenyls.
- 31. Petroleum—Petroleum, including crude oil or any fraction thereof which is liquid at standard conditions of temperature and pressure (60 degrees Fahrenheit and 14.7 pounds per square inch absolute), such as oil, petroleum, fuel oil, oil sludge, oil refuse, gasoline, kerosene, and oil mixed with other non-Hazardous Waste and crude oils.
- 32. *Progress Schedule*—A schedule, prepared and maintained by Contractor, describing the sequence and duration of the activities comprising the Contractor's plan to accomplish the Work within the Contract Times.
- 33. *Project*—The total construction of which the Work to be performed under the Contract Documents may be the whole, or a part.
- 34. *Project Manual*—The bound documentary information prepared for bidding and constructing the Work. A listing of the contents of the Project Manual, which may be bound in one or more volumes, is contained in the table(s) of contents.
- 35. Radioactive Material—Source, special nuclear, or byproduct material as defined by the Atomic Energy Act of 1954 (42 USC Section 2011 et seq.) as amended from time to time.
- 36. Resident Project Representative—The authorized representative of Engineer who may be assigned to the Site or any part thereof.
- 37. Samples—Physical examples of materials, equipment, or workmanship that are representative of some portion of the Work and which establish the standards by which such portion of the Work will be judged.
- 38. Schedule of Submittals—A schedule, prepared and maintained by Contractor, of required submittals and the time requirements to support scheduled performance of related construction activities.
- 39. Schedule of Values—A schedule, prepared and maintained by Contractor, allocating portions of the Contract Price to various portions of the Work and used as the basis for reviewing Contractor's Applications for Payment.

- 40. Shop Drawings—All drawings, diagrams, illustrations, schedules, and other data or information which are specifically prepared or assembled by or for Contractor and submitted by Contractor to illustrate some portion of the Work.
- 41. *Site*—Lands or areas indicated in the Contract Documents as being furnished by Owner upon which the Work is to be performed, including rights-of-way and easements for access thereto, and such other lands furnished by Owner which are designated for the use of Contractor.
- 42. Specifications—That part of the Contract Documents consisting of written requirements for materials, equipment, systems, standards and workmanship as applied to the Work, and certain administrative requirements and procedural matters applicable thereto.
- 43. *Subcontractor*—An individual or entity having a direct contract with Contractor or with any other Subcontractor for the performance of a part of the Work at the Site.
- 44. Substantial Completion—The time at which the Work (or a specified part thereof) has progressed to the point where, in the opinion of Engineer, the Work (or a specified part thereof) is sufficiently complete, in accordance with the Contract Documents, so that the Work (or a specified part thereof) can be utilized for the purposes for which it is intended. The terms "substantially complete" and "substantially completed" as applied to all or part of the Work refer to Substantial Completion thereof.
- 45. Successful Bidder—The Bidder submitting a responsive Bid to whom Owner makes an award.
- 46. Supplementary Conditions—That part of the Contract Documents which amends or supplements these General Conditions.
- 47. Supplier—A manufacturer, fabricator, supplier, distributor, materialman, or vendor having a direct contract with Contractor or with any Subcontractor to furnish materials or equipment to be incorporated in the Work by Contractor or Subcontractor.
- 48. *Underground Facilities*—All underground pipelines, conduits, ducts, cables, wires, manholes, vaults, tanks, tunnels, or other such facilities or attachments, and any encasements containing such facilities, including those that convey electricity, gases, steam, liquid petroleum products, telephone or other communications, cable television, water, wastewater, storm water, other liquids or chemicals, or traffic or other control systems.
- 49. *Unit Price Work*—Work to be paid for on the basis of unit prices.
- 50. Work—The entire construction or the various separately identifiable parts thereof required to be provided under the Contract Documents. Work includes and is the result of performing or providing all labor, services, and documentation necessary to produce such construction, and furnishing, installing, and incorporating all materials and equipment into such construction, all as required by the Contract Documents.
- 51. Work Change Directive—A written statement to Contractor issued on or after the Effective Date of the Agreement and signed by Owner and recommended by Engineer ordering an

addition, deletion, or revision in the Work, or responding to differing or unforeseen subsurface or physical conditions under which the Work is to be performed or to emergencies. A Work Change Directive will not change the Contract Price or the Contract Times but is evidence that the parties expect that the change ordered or documented by a Work Change Directive will be incorporated in a subsequently issued Change Order following negotiations by the parties as to its effect, if any, on the Contract Price or Contract Times.

1.02 Terminology

A. The words or terms discussed in Paragraph 1.02.B-F are not defined but, when used in the Bidding Requirements or Contract Documents, have the indicated meaning.

B. Intent of Certain Terms or Adjectives:

1. The Contract Documents include the terms "as allowed," "as approved," "as ordered," "as directed" or terms of like effect or import to authorize an exercise of professional judgment by Engineer. In addition, the adjectives "reasonable," "suitable," "acceptable," "proper," "satisfactory," or adjectives of like effect or import are used to describe an action or determination of Engineer as to the Work. It is intended that such exercise of professional judgment, action, or determination will be solely to evaluate, in general, the Work for compliance with the information in the Contract Documents and with the design concept of the Project as a functioning whole as shown or indicated in the Contract Documents (unless there is a specific statement indicating otherwise). The use of any such term or adjective is not intended to and shall not be effective to assign to Engineer any duty or authority to supervise or direct the performance of the Work, or any duty or authority to undertake responsibility contrary to the provisions of Paragraph 9.09 or any other provision of the Contract Documents.

C. Day:

1. The word "day" means a calendar day of 24 hours measured from midnight to the next midnight.

D. Defective:

- 1. The word "defective," when modifying the word "Work," refers to Work that is unsatisfactory, faulty, or deficient in that it:
 - a. does not conform to the Contract Documents; or
 - b. does not meet the requirements of any applicable inspection, reference standard, test, or approval referred to in the Contract Documents; or
 - c. has been damaged prior to Engineer's recommendation of final payment (unless responsibility for the protection thereof has been assumed by Owner at Substantial Completion in accordance with Paragraph 14.04 or 14.05).

E. Furnish, Install, Perform, Provide:

- 1. The word "furnish," when used in connection with services, materials, or equipment, shall mean to supply and deliver said services, materials, or equipment to the Site (or some other specified location) ready for use or installation and in usable or operable condition.
- 2. The word "install," when used in connection with services, materials, or equipment, shall mean to put into use or place in final position said services, materials, or equipment complete and ready for intended use.
- 3. The words "perform" or "provide," when used in connection with services, materials, or equipment, shall mean to furnish and install said services, materials, or equipment complete and ready for intended use.
- 4. When "furnish," "install," "perform," or "provide" is not used in connection with services, materials, or equipment in a context clearly requiring an obligation of Contractor, "provide" is implied.
- F. Unless stated otherwise in the Contract Documents, words or phrases which have a well-known technical or construction industry or trade meaning are used in the Contract Documents in accordance with such recognized meaning.

ARTICLE 2 – PRELIMINARY MATTERS

2.01 Delivery of Bonds and Evidence of Insurance

- A. When Contractor delivers the executed counterparts of the Agreement to Owner, Contractor shall also deliver to Owner such bonds as Contractor may be required to furnish.
- B. Evidence of Insurance: Before any Work at the Site is started, Contractor and Owner shall each deliver to the other, with copies to each additional insured identified in the Supplementary Conditions, certificates of insurance (and other evidence of insurance which either of them or any additional insured may reasonably request) which Contractor and Owner respectively are required to purchase and maintain in accordance with Article 5.

2.02 Copies of Documents

A. Owner shall furnish to Contractor up to ten printed or hard copies of the Drawings and Project Manual. Additional copies will be furnished upon request at the cost of reproduction.

2.03 Commencement of Contract Times; Notice to Proceed

A. The Contract Times will commence to run on the thirtieth day after the Effective Date of the Agreement or, if a Notice to Proceed is given, on the day indicated in the Notice to Proceed. A Notice to Proceed may be given at any time within 30 days after the Effective Date of the Agreement. In no event will the Contract Times commence to run later than the sixtieth day after the day of Bid opening or the thirtieth day after the Effective Date of the Agreement, whichever date is earlier.

2.04 Starting the Work

A. Contractor shall start to perform the Work on the date when the Contract Times commence to run. No Work shall be done at the Site prior to the date on which the Contract Times commence to run.

2.05 Before Starting Construction

- A. *Preliminary Schedules:* Within 10 days after the Effective Date of the Agreement (unless otherwise specified in the General Requirements), Contractor shall submit to Engineer for timely review:
 - 1. a preliminary Progress Schedule indicating the times (numbers of days or dates) for starting and completing the various stages of the Work, including any Milestones specified in the Contract Documents;
 - 2. a preliminary Schedule of Submittals; and
 - 3. a preliminary Schedule of Values for all of the Work which includes quantities and prices of items which when added together equal the Contract Price and subdivides the Work into component parts in sufficient detail to serve as the basis for progress payments during performance of the Work. Such prices will include an appropriate amount of overhead and profit applicable to each item of Work.

2.06 Preconstruction Conference; Designation of Authorized Representatives

- A. Before any Work at the Site is started, a conference attended by Owner, Contractor, Engineer, and others as appropriate will be held to establish a working understanding among the parties as to the Work and to discuss the schedules referred to in Paragraph 2.05.A, procedures for handling Shop Drawings and other submittals, processing Applications for Payment, and maintaining required records.
- B. At this conference Owner and Contractor each shall designate, in writing, a specific individual to act as its representative with respect to the services and responsibilities under the Contract. Such individuals shall have the authority to transmit instructions, receive information, render decisions relative to the Contract, and otherwise act on behalf of each respective party.

2.07 Initial Acceptance of Schedules

- A. At least 10 days before submission of the first Application for Payment a conference attended by Contractor, Engineer, and others as appropriate will be held to review for acceptability to Engineer as provided below the schedules submitted in accordance with Paragraph 2.05.A. Contractor shall have an additional 10 days to make corrections and adjustments and to complete and resubmit the schedules. No progress payment shall be made to Contractor until acceptable schedules are submitted to Engineer.
 - 1. The Progress Schedule will be acceptable to Engineer if it provides an orderly progression of the Work to completion within the Contract Times. Such acceptance will not impose on

Engineer responsibility for the Progress Schedule, for sequencing, scheduling, or progress of the Work, nor interfere with or relieve Contractor from Contractor's full responsibility therefor.

- 2. Contractor's Schedule of Submittals will be acceptable to Engineer if it provides a workable arrangement for reviewing and processing the required submittals.
- 3. Contractor's Schedule of Values will be acceptable to Engineer as to form and substance if it provides a reasonable allocation of the Contract Price to component parts of the Work.

ARTICLE 3 – CONTRACT DOCUMENTS: INTENT, AMENDING, REUSE

3.01 Intent

- A. The Contract Documents are complementary; what is required by one is as binding as if required by all.
- B. It is the intent of the Contract Documents to describe a functionally complete project (or part thereof) to be constructed in accordance with the Contract Documents. Any labor, documentation, services, materials, or equipment that reasonably may be inferred from the Contract Documents or from prevailing custom or trade usage as being required to produce the indicated result will be provided whether or not specifically called for, at no additional cost to Owner.
- C. Clarifications and interpretations of the Contract Documents shall be issued by Engineer as provided in Article 9.

3.02 Reference Standards

- A. Standards, Specifications, Codes, Laws, and Regulations
 - Reference to standards, specifications, manuals, or codes of any technical society, organization, or association, or to Laws or Regulations, whether such reference be specific or by implication, shall mean the standard, specification, manual, code, or Laws or Regulations in effect at the time of opening of Bids (or on the Effective Date of the Agreement if there were no Bids), except as may be otherwise specifically stated in the Contract Documents.
 - 2. No provision of any such standard, specification, manual, or code, or any instruction of a Supplier, shall be effective to change the duties or responsibilities of Owner, Contractor, or Engineer, or any of their subcontractors, consultants, agents, or employees, from those set forth in the Contract Documents. No such provision or instruction shall be effective to assign to Owner, Engineer, or any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors, any duty or authority to supervise or direct the performance of the Work or any duty or authority to undertake responsibility inconsistent with the provisions of the Contract Documents.

A. Reporting Discrepancies:

- 1. Contractor's Review of Contract Documents Before Starting Work: Before undertaking each part of the Work, Contractor shall carefully study and compare the Contract Documents and check and verify pertinent figures therein and all applicable field measurements. Contractor shall promptly report in writing to Engineer any conflict, error, ambiguity, or discrepancy which Contractor discovers, or has actual knowledge of, and shall obtain a written interpretation or clarification from Engineer before proceeding with any Work affected thereby.
- 2. Contractor's Review of Contract Documents During Performance of Work: If, during the performance of the Work, Contractor discovers any conflict, error, ambiguity, or discrepancy within the Contract Documents, or between the Contract Documents and (a) any applicable Law or Regulation, (b) any standard, specification, manual, or code, or (c) any instruction of any Supplier, then Contractor shall promptly report it to Engineer in writing. Contractor shall not proceed with the Work affected thereby (except in an emergency as required by Paragraph 6.16.A) until an amendment or supplement to the Contract Documents has been issued by one of the methods indicated in Paragraph 3.04.
- 3. Contractor shall not be liable to Owner or Engineer for failure to report any conflict, error, ambiguity, or discrepancy in the Contract Documents unless Contractor had actual knowledge thereof.

B. Resolving Discrepancies:

- 1. Except as may be otherwise specifically stated in the Contract Documents, the provisions of the Contract Documents shall take precedence in resolving any conflict, error, ambiguity, or discrepancy between the provisions of the Contract Documents and:
 - a. the provisions of any standard, specification, manual, or code, or the instruction of any Supplier (whether or not specifically incorporated by reference in the Contract Documents); or
 - b. the provisions of any Laws or Regulations applicable to the performance of the Work (unless such an interpretation of the provisions of the Contract Documents would result in violation of such Law or Regulation).

3.04 Amending and Supplementing Contract Documents

- A. The Contract Documents may be amended to provide for additions, deletions, and revisions in the Work or to modify the terms and conditions thereof by either a Change Order or a Work Change Directive.
- B. The requirements of the Contract Documents may be supplemented, and minor variations and deviations in the Work may be authorized, by one or more of the following ways:

- 1. A Field Order;
- 2. Engineer's approval of a Shop Drawing or Sample (subject to the provisions of Paragraph 6.17.D.3); or
- 3. Engineer's written interpretation or clarification.

3.05 Reuse of Documents

- A. Contractor and any Subcontractor or Supplier shall not:
 - 1. have or acquire any title to or ownership rights in any of the Drawings, Specifications, or other documents (or copies of any thereof) prepared by or bearing the seal of Engineer or its consultants, including electronic media editions; or
 - 2. reuse any such Drawings, Specifications, other documents, or copies thereof on extensions of the Project or any other project without written consent of Owner and Engineer and specific written verification or adaptation by Engineer.
- B. The prohibitions of this Paragraph 3.05 will survive final payment, or termination of the Contract. Nothing herein shall preclude Contractor from retaining copies of the Contract Documents for record purposes.

3.06 Electronic Data

- A. Unless otherwise stated in the Supplementary Conditions, the data furnished by Owner or Engineer to Contractor, or by Contractor to Owner or Engineer, that may be relied upon are limited to the printed copies (also known as hard copies). Files in electronic media format of text, data, graphics, or other types are furnished only for the convenience of the receiving party. Any conclusion or information obtained or derived from such electronic files will be at the user's sole risk. If there is a discrepancy between the electronic files and the hard copies, the hard copies govern.
- B. Because data stored in electronic media format can deteriorate or be modified inadvertently or otherwise without authorization of the data's creator, the party receiving electronic files agrees that it will perform acceptance tests or procedures within 60 days, after which the receiving party shall be deemed to have accepted the data thus transferred. Any errors detected within the 60-day acceptance period will be corrected by the transferring party.
- C. When transferring documents in electronic media format, the transferring party makes no representations as to long term compatibility, usability, or readability of documents resulting from the use of software application packages, operating systems, or computer hardware differing from those used by the data's creator.

ARTICLE 4 – AVAILABILITY OF LANDS; SUBSURFACE AND PHYSICAL CONDITIONS; HAZARDOUS ENVIRONMENTAL CONDITIONS; REFERENCE POINTS

4.01 Availability of Lands

- A. Owner shall furnish the Site. Owner shall notify Contractor of any encumbrances or restrictions not of general application but specifically related to use of the Site with which Contractor must comply in performing the Work. Owner will obtain in a timely manner and pay for easements for permanent structures or permanent changes in existing facilities. If Contractor and Owner are unable to agree on entitlement to or on the amount or extent, if any, of any adjustment in the Contract Price or Contract Times, or both, as a result of any delay in Owner's furnishing the Site or a part thereof, Contractor may make a Claim therefor as provided in Paragraph 10.05.
- B. Upon reasonable written request, Owner shall furnish Contractor with a current statement of record legal title and legal description of the lands upon which the Work is to be performed and Owner's interest therein as necessary for giving notice of or filing a mechanic's or construction lien against such lands in accordance with applicable Laws and Regulations.
- C. Contractor shall provide for all additional lands and access thereto that may be required for temporary construction facilities or storage of materials and equipment.

4.02 Subsurface and Physical Conditions

- A. Reports and Drawings: The Supplementary Conditions identify:
 - 1. those reports known to Owner of explorations and tests of subsurface conditions at or contiguous to the Site; and
 - 2. those drawings known to Owner of physical conditions relating to existing surface or subsurface structures at the Site (except Underground Facilities).
- B. Limited Reliance by Contractor on Technical Data Authorized: Contractor may rely upon the accuracy of the "technical data" contained in such reports and drawings, but such reports and drawings are not Contract Documents. Such "technical data" is identified in the Supplementary Conditions. Except for such reliance on such "technical data," Contractor may not rely upon or make any claim against Owner or Engineer, or any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors with respect to:
 - the completeness of such reports and drawings for Contractor's purposes, including, but not limited to, any aspects of the means, methods, techniques, sequences, and procedures of construction to be employed by Contractor, and safety precautions and programs incident thereto; or
 - 2. other data, interpretations, opinions, and information contained in such reports or shown or indicated in such drawings; or
 - 3. any Contractor interpretation of or conclusion drawn from any "technical data" or any such other data, interpretations, opinions, or information.

4.03 Differing Subsurface or Physical Conditions

- A. *Notice:* If Contractor believes that any subsurface or physical condition that is uncovered or revealed either:
 - 1. is of such a nature as to establish that any "technical data" on which Contractor is entitled to rely as provided in Paragraph 4.02 is materially inaccurate; or
 - 2. is of such a nature as to require a change in the Contract Documents; or
 - 3. differs materially from that shown or indicated in the Contract Documents; or
 - 4. is of an unusual nature, and differs materially from conditions ordinarily encountered and generally recognized as inherent in work of the character provided for in the Contract Documents;

then Contractor shall, promptly after becoming aware thereof and before further disturbing the subsurface or physical conditions or performing any Work in connection therewith (except in an emergency as required by Paragraph 6.16.A), notify Owner and Engineer in writing about such condition. Contractor shall not further disturb such condition or perform any Work in connection therewith (except as aforesaid) until receipt of written order to do so.

- B. *Engineer's Review*: After receipt of written notice as required by Paragraph 4.03.A, Engineer will promptly review the pertinent condition, determine the necessity of Owner's obtaining additional exploration or tests with respect thereto, and advise Owner in writing (with a copy to Contractor) of Engineer's findings and conclusions.
- C. Possible Price and Times Adjustments:
 - 1. The Contract Price or the Contract Times, or both, will be equitably adjusted to the extent that the existence of such differing subsurface or physical condition causes an increase or decrease in Contractor's cost of, or time required for, performance of the Work; subject, however, to the following:
 - a. such condition must meet any one or more of the categories described in Paragraph 4.03.A; and
 - b. with respect to Work that is paid for on a Unit Price Basis, any adjustment in Contract Price will be subject to the provisions of Paragraphs 9.07 and 11.03.
 - 2. Contractor shall not be entitled to any adjustment in the Contract Price or Contract Times if:
 - a. Contractor knew of the existence of such conditions at the time Contractor made a final commitment to Owner with respect to Contract Price and Contract Times by the submission of a Bid or becoming bound under a negotiated contract; or
 - b. the existence of such condition could reasonably have been discovered or revealed as a result of any examination, investigation, exploration, test, or study of the Site and

- contiguous areas required by the Bidding Requirements or Contract Documents to be conducted by or for Contractor prior to Contractor's making such final commitment; or
- c. Contractor failed to give the written notice as required by Paragraph 4.03.A.
- 3. If Owner and Contractor are unable to agree on entitlement to or on the amount or extent, if any, of any adjustment in the Contract Price or Contract Times, or both, a Claim may be made therefor as provided in Paragraph 10.05. However, neither Owner or Engineer, or any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors shall be liable to Contractor for any claims, costs, losses, or damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) sustained by Contractor on or in connection with any other project or anticipated project.

4.04 Underground Facilities

- A. Shown or Indicated: The information and data shown or indicated in the Contract Documents with respect to existing Underground Facilities at or contiguous to the Site is based on information and data furnished to Owner or Engineer by the owners of such Underground Facilities, including Owner, or by others. Unless it is otherwise expressly provided in the Supplementary Conditions:
 - 1. Owner and Engineer shall not be responsible for the accuracy or completeness of any such information or data provided by others; and
 - 2. the cost of all of the following will be included in the Contract Price, and Contractor shall have full responsibility for:
 - a. reviewing and checking all such information and data;
 - b. locating all Underground Facilities shown or indicated in the Contract Documents;
 - c. coordination of the Work with the owners of such Underground Facilities, including Owner, during construction; and
 - d. the safety and protection of all such Underground Facilities and repairing any damage thereto resulting from the Work.

B. Not Shown or Indicated:

1. If an Underground Facility is uncovered or revealed at or contiguous to the Site which was not shown or indicated, or not shown or indicated with reasonable accuracy in the Contract Documents, Contractor shall, promptly after becoming aware thereof and before further disturbing conditions affected thereby or performing any Work in connection therewith (except in an emergency as required by Paragraph 6.16.A), identify the owner of such Underground Facility and give written notice to that owner and to Owner and Engineer. Engineer will promptly review the Underground Facility and determine the extent, if any, to which a change is required in the Contract Documents to reflect and document the

- consequences of the existence or location of the Underground Facility. During such time, Contractor shall be responsible for the safety and protection of such Underground Facility.
- 2. If Engineer concludes that a change in the Contract Documents is required, a Work Change Directive or a Change Order will be issued to reflect and document such consequences. An equitable adjustment shall be made in the Contract Price or Contract Times, or both, to the extent that they are attributable to the existence or location of any Underground Facility that was not shown or indicated or not shown or indicated with reasonable accuracy in the Contract Documents and that Contractor did not know of and could not reasonably have been expected to be aware of or to have anticipated. If Owner and Contractor are unable to agree on entitlement to or on the amount or extent, if any, of any such adjustment in Contract Price or Contract Times, Owner or Contractor may make a Claim therefor as provided in Paragraph 10.05.

4.05 Reference Points

A. Owner shall provide engineering surveys to establish reference points for construction which in Engineer's judgment are necessary to enable Contractor to proceed with the Work. Contractor shall be responsible for laying out the Work, shall protect and preserve the established reference points and property monuments, and shall make no changes or relocations without the prior written approval of Owner. Contractor shall report to Engineer whenever any reference point or property monument is lost or destroyed or requires relocation because of necessary changes in grades or locations, and shall be responsible for the accurate replacement or relocation of such reference points or property monuments by professionally qualified personnel.

4.06 Hazardous Environmental Condition at Site

- A. Reports and Drawings: The Supplementary Conditions identify those reports and drawings known to Owner relating to Hazardous Environmental Conditions that have been identified at the Site.
- B. Limited Reliance by Contractor on Technical Data Authorized: Contractor may rely upon the accuracy of the "technical data" contained in such reports and drawings, but such reports and drawings are not Contract Documents. Such "technical data" is identified in the Supplementary Conditions. Except for such reliance on such "technical data," Contractor may not rely upon or make any claim against Owner or Engineer, or any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors with respect to:
 - 1. the completeness of such reports and drawings for Contractor's purposes, including, but not limited to, any aspects of the means, methods, techniques, sequences and procedures of construction to be employed by Contractor and safety precautions and programs incident thereto; or
 - 2. other data, interpretations, opinions and information contained in such reports or shown or indicated in such drawings; or
 - 3. any Contractor interpretation of or conclusion drawn from any "technical data" or any such other data, interpretations, opinions or information.

- C. Contractor shall not be responsible for any Hazardous Environmental Condition uncovered or revealed at the Site which was not shown or indicated in Drawings or Specifications or identified in the Contract Documents to be within the scope of the Work. Contractor shall be responsible for a Hazardous Environmental Condition created with any materials brought to the Site by Contractor, Subcontractors, Suppliers, or anyone else for whom Contractor is responsible.
- D. If Contractor encounters a Hazardous Environmental Condition or if Contractor or anyone for whom Contractor is responsible creates a Hazardous Environmental Condition, Contractor shall immediately: (i) secure or otherwise isolate such condition; (ii) stop all Work in connection with such condition and in any area affected thereby (except in an emergency as required by Paragraph 6.16.A); and (iii) notify Owner and Engineer (and promptly thereafter confirm such notice in writing). Owner shall promptly consult with Engineer concerning the necessity for Owner to retain a qualified expert to evaluate such condition or take corrective action, if any. Promptly after consulting with Engineer, Owner shall take such actions as are necessary to permit Owner to timely obtain required permits and provide Contractor the written notice required by Paragraph 4.06.E.
- E. Contractor shall not be required to resume Work in connection with such condition or in any affected area until after Owner has obtained any required permits related thereto and delivered written notice to Contractor: (i) specifying that such condition and any affected area is or has been rendered safe for the resumption of Work; or (ii) specifying any special conditions under which such Work may be resumed safely. If Owner and Contractor cannot agree as to entitlement to or on the amount or extent, if any, of any adjustment in Contract Price or Contract Times, or both, as a result of such Work stoppage or such special conditions under which Work is agreed to be resumed by Contractor, either party may make a Claim therefor as provided in Paragraph 10.05.
- F. If after receipt of such written notice Contractor does not agree to resume such Work based on a reasonable belief it is unsafe, or does not agree to resume such Work under such special conditions, then Owner may order the portion of the Work that is in the area affected by such condition to be deleted from the Work. If Owner and Contractor cannot agree as to entitlement to or on the amount or extent, if any, of an adjustment in Contract Price or Contract Times as a result of deleting such portion of the Work, then either party may make a Claim therefor as provided in Paragraph 10.05. Owner may have such deleted portion of the Work performed by Owner's own forces or others in accordance with Article 7.
- G. To the fullest extent permitted by Laws and Regulations, Owner shall indemnify and hold harmless Contractor, Subcontractors, and Engineer, and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to a Hazardous Environmental Condition, provided that such Hazardous Environmental Condition: (i) was not shown or indicated in the Drawings or Specifications or identified in the Contract Documents to be included within the scope of the Work, and (ii) was not created by Contractor or by anyone for whom Contractor is responsible. Nothing in this Paragraph 4.06.G shall obligate Owner to indemnify any individual or entity from and against the consequences of that individual's or entity's own negligence.

- H. To the fullest extent permitted by Laws and Regulations, Contractor shall indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to a Hazardous Environmental Condition created by Contractor or by anyone for whom Contractor is responsible. Nothing in this Paragraph 4.06.H shall obligate Contractor to indemnify any individual or entity from and against the consequences of that individual's or entity's own negligence.
- I. The provisions of Paragraphs 4.02, 4.03, and 4.04 do not apply to a Hazardous Environmental Condition uncovered or revealed at the Site.

ARTICLE 5 – BONDS AND INSURANCE

5.01 Performance, Payment, and Other Bonds

- A. Contractor shall furnish performance and payment bonds, each in an amount at least equal to the Contract Price as security for the faithful performance and payment of all of Contractor's obligations under the Contract Documents. These bonds shall remain in effect until one year after the date when final payment becomes due or until completion of the correction period specified in Paragraph 13.07, whichever is later, except as provided otherwise by Laws or Regulations or by the Contract Documents. Contractor shall also furnish such other bonds as are required by the Contract Documents.
- B. All bonds shall be in the form prescribed by the Contract Documents except as provided otherwise by Laws or Regulations, and shall be executed by such sureties as are named in the list of "Companies Holding Certificates of Authority as Acceptable Sureties on Federal Bonds and as Acceptable Reinsuring Companies" as published in Circular 570 (amended) by the Financial Management Service, Surety Bond Branch, U.S. Department of the Treasury. All bonds signed by an agent or attorney-in-fact must be accompanied by a certified copy of that individual's authority to bind the surety. The evidence of authority shall show that it is effective on the date the agent or attorney-in-fact signed each bond.
- C. If the surety on any bond furnished by Contractor is declared bankrupt or becomes insolvent or its right to do business is terminated in any state where any part of the Project is located or it ceases to meet the requirements of Paragraph 5.01.B, Contractor shall promptly notify Owner and Engineer and shall, within 20 days after the event giving rise to such notification, provide another bond and surety, both of which shall comply with the requirements of Paragraphs 5.01.B and 5.02.

5.02 Licensed Sureties and Insurers

A. All bonds and insurance required by the Contract Documents to be purchased and maintained by Owner or Contractor shall be obtained from surety or insurance companies that are duly licensed or authorized in the jurisdiction in which the Project is located to issue bonds or insurance policies for the limits and coverages so required. Such surety and insurance companies shall also

meet such additional requirements and qualifications as may be provided in the Supplementary Conditions.

5.03 Certificates of Insurance

- A. Contractor shall deliver to Owner, with copies to each additional insured and loss payee identified in the Supplementary Conditions, certificates of insurance (and other evidence of insurance requested by Owner or any other additional insured) which Contractor is required to purchase and maintain.
- B. Owner shall deliver to Contractor, with copies to each additional insured and loss payee identified in the Supplementary Conditions, certificates of insurance (and other evidence of insurance requested by Contractor or any other additional insured) which Owner is required to purchase and maintain.
- C. Failure of Owner to demand such certificates or other evidence of Contractor's full compliance with these insurance requirements or failure of Owner to identify a deficiency in compliance from the evidence provided shall not be construed as a waiver of Contractor's obligation to maintain such insurance.
- D. Owner does not represent that insurance coverage and limits established in this Contract necessarily will be adequate to protect Contractor.
- E. The insurance and insurance limits required herein shall not be deemed as a limitation on Contractor's liability under the indemnities granted to Owner in the Contract Documents.

5.04 Contractor's Insurance

- A. Contractor shall purchase and maintain such insurance as is appropriate for the Work being performed and as will provide protection from claims set forth below which may arise out of or result from Contractor's performance of the Work and Contractor's other obligations under the Contract Documents, whether it is to be performed by Contractor, any Subcontractor or Supplier, or by anyone directly or indirectly employed by any of them to perform any of the Work, or by anyone for whose acts any of them may be liable:
 - 1. claims under workers' compensation, disability benefits, and other similar employee benefit acts;
 - claims for damages because of bodily injury, occupational sickness or disease, or death of Contractor's employees;
 - 3. claims for damages because of bodily injury, sickness or disease, or death of any person other than Contractor's employees;
 - 4. claims for damages insured by reasonably available personal injury liability coverage which are sustained:

- a. by any person as a result of an offense directly or indirectly related to the employment of such person by Contractor, or
- b. by any other person for any other reason;
- 5. claims for damages, other than to the Work itself, because of injury to or destruction of tangible property wherever located, including loss of use resulting therefrom; and
- 6. claims for damages because of bodily injury or death of any person or property damage arising out of the ownership, maintenance or use of any motor vehicle.

B. The policies of insurance required by this Paragraph 5.04 shall:

- 1. with respect to insurance required by Paragraphs 5.04.A.3 through 5.04.A.6 inclusive, be written on an occurrence basis, include as additional insureds (subject to any customary exclusion regarding professional liability) Owner and Engineer, and any other individuals or entities identified in the Supplementary Conditions, all of whom shall be listed as additional insureds, and include coverage for the respective officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of all such additional insureds, and the insurance afforded to these additional insureds shall provide primary coverage for all claims covered thereby;
- include at least the specific coverages and be written for not less than the limits of liability provided in the Supplementary Conditions or required by Laws or Regulations, whichever is greater;
- 3. include contractual liability insurance covering Contractor's indemnity obligations under Paragraphs 6.11 and 6.20;
- 4. contain a provision or endorsement that the coverage afforded will not be canceled, materially changed or renewal refused until at least 30 days prior written notice has been given to Owner and Contractor and to each other additional insured identified in the Supplementary Conditions to whom a certificate of insurance has been issued (and the certificates of insurance furnished by the Contractor pursuant to Paragraph 5.03 will so provide);
- 5. remain in effect at least until final payment and at all times thereafter when Contractor may be correcting, removing, or replacing defective Work in accordance with Paragraph 13.07; and
- 6. include completed operations coverage:
 - a. Such insurance shall remain in effect for two years after final payment.
 - b. Contractor shall furnish Owner and each other additional insured identified in the Supplementary Conditions, to whom a certificate of insurance has been issued, evidence satisfactory to Owner and any such additional insured of continuation of such insurance at final payment and one year thereafter.

5.05 Owner's Liability Insurance

A. In addition to the insurance required to be provided by Contractor under Paragraph 5.04, Owner, at Owner's option, may purchase and maintain at Owner's expense Owner's own liability insurance as will protect Owner against claims which may arise from operations under the Contract Documents.

5.06 Owner's Property Insurance

- A. Unless otherwise provided in the Supplementary Conditions, Owner shall purchase and maintain property insurance upon the Work at the Site in the amount of the full replacement cost thereof (subject to such deductible amounts as may be provided in the Supplementary Conditions or required by Laws and Regulations). This insurance shall:
 - include the interests of Owner, Contractor, Subcontractors, and Engineer, and any other individuals or entities identified in the Supplementary Conditions, and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them, each of whom is deemed to have an insurable interest and shall be listed as a loss payee;
 - 2. be written on a Builder's Risk "all-risk" policy form that shall at least include insurance for physical loss or damage to the Work, temporary buildings, falsework, and materials and equipment in transit, and shall insure against at least the following perils or causes of loss: fire, lightning, extended coverage, theft, vandalism and malicious mischief, earthquake, collapse, debris removal, demolition occasioned by enforcement of Laws and Regulations, water damage (other than that caused by flood), and such other perils or causes of loss as may be specifically required by the Supplementary Conditions.
 - 3. include expenses incurred in the repair or replacement of any insured property (including but not limited to fees and charges of engineers and architects);
 - 4. cover materials and equipment stored at the Site or at another location that was agreed to in writing by Owner prior to being incorporated in the Work, provided that such materials and equipment have been included in an Application for Payment recommended by Engineer;
 - 5. allow for partial utilization of the Work by Owner;
 - 6. include testing and startup; and
 - 7. be maintained in effect until final payment is made unless otherwise agreed to in writing by Owner, Contractor, and Engineer with 30 days written notice to each other loss payee to whom a certificate of insurance has been issued.
- B. Owner shall purchase and maintain such equipment breakdown insurance or additional property insurance as may be required by the Supplementary Conditions or Laws and Regulations which will include the interests of Owner, Contractor, Subcontractors, and Engineer, and any other individuals or entities identified in the Supplementary Conditions, and the officers, directors,

- members, partners, employees, agents, consultants and subcontractors of each and any of them, each of whom is deemed to have an insurable interest and shall be listed as a loss payee.
- C. All the policies of insurance (and the certificates or other evidence thereof) required to be purchased and maintained in accordance with this Paragraph 5.06 will contain a provision or endorsement that the coverage afforded will not be canceled or materially changed or renewal refused until at least 30 days prior written notice has been given to Owner and Contractor and to each other loss payee to whom a certificate of insurance has been issued and will contain waiver provisions in accordance with Paragraph 5.07.
- D. Owner shall not be responsible for purchasing and maintaining any property insurance specified in this Paragraph 5.06 to protect the interests of Contractor, Subcontractors, or others in the Work to the extent of any deductible amounts that are identified in the Supplementary Conditions. The risk of loss within such identified deductible amount will be borne by Contractor, Subcontractors, or others suffering any such loss, and if any of them wishes property insurance coverage within the limits of such amounts, each may purchase and maintain it at the purchaser's own expense.
- E. If Contractor requests in writing that other special insurance be included in the property insurance policies provided under this Paragraph 5.06, Owner shall, if possible, include such insurance, and the cost thereof will be charged to Contractor by appropriate Change Order. Prior to commencement of the Work at the Site, Owner shall in writing advise Contractor whether or not such other insurance has been procured by Owner.

5.07 Waiver of Rights

- A. Owner and Contractor intend that all policies purchased in accordance with Paragraph 5.06 will protect Owner, Contractor, Subcontractors, and Engineer, and all other individuals or entities identified in the Supplementary Conditions as loss payees (and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them) in such policies and will provide primary coverage for all losses and damages caused by the perils or causes of loss covered thereby. All such policies shall contain provisions to the effect that in the event of payment of any loss or damage the insurers will have no rights of recovery against any of the insureds or loss payees thereunder. Owner and Contractor waive all rights against each other and their respective officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them for all losses and damages caused by, arising out of or resulting from any of the perils or causes of loss covered by such policies and any other property insurance applicable to the Work; and, in addition, waive all such rights against Subcontractors and Engineer, and all other individuals or entities identified in the Supplementary Conditions as loss payees (and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them) under such policies for losses and damages so caused. None of the above waivers shall extend to the rights that any party making such waiver may have to the proceeds of insurance held by Owner as trustee or otherwise payable under any policy so issued.
- B. Owner waives all rights against Contractor, Subcontractors, and Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them for:

- 1. loss due to business interruption, loss of use, or other consequential loss extending beyond direct physical loss or damage to Owner's property or the Work caused by, arising out of, or resulting from fire or other perils whether or not insured by Owner; and
- 2. loss or damage to the completed Project or part thereof caused by, arising out of, or resulting from fire or other insured peril or cause of loss covered by any property insurance maintained on the completed Project or part thereof by Owner during partial utilization pursuant to Paragraph 14.05, after Substantial Completion pursuant to Paragraph 14.04, or after final payment pursuant to Paragraph 14.07.
- C. Any insurance policy maintained by Owner covering any loss, damage or consequential loss referred to in Paragraph 5.07.B shall contain provisions to the effect that in the event of payment of any such loss, damage, or consequential loss, the insurers will have no rights of recovery against Contractor, Subcontractors, or Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them.

5.08 Receipt and Application of Insurance Proceeds

- A. Any insured loss under the policies of insurance required by Paragraph 5.06 will be adjusted with Owner and made payable to Owner as fiduciary for the loss payees, as their interests may appear, subject to the requirements of any applicable mortgage clause and of Paragraph 5.08.B. Owner shall deposit in a separate account any money so received and shall distribute it in accordance with such agreement as the parties in interest may reach. If no other special agreement is reached, the damaged Work shall be repaired or replaced, the moneys so received applied on account thereof, and the Work and the cost thereof covered by an appropriate Change Order.
- B. Owner as fiduciary shall have power to adjust and settle any loss with the insurers unless one of the parties in interest shall object in writing within 15 days after the occurrence of loss to Owner's exercise of this power. If such objection be made, Owner as fiduciary shall make settlement with the insurers in accordance with such agreement as the parties in interest may reach. If no such agreement among the parties in interest is reached, Owner as fiduciary shall adjust and settle the loss with the insurers and, if required in writing by any party in interest, Owner as fiduciary shall give bond for the proper performance of such duties.

5.09 Acceptance of Bonds and Insurance; Option to Replace

A. If either Owner or Contractor has any objection to the coverage afforded by or other provisions of the bonds or insurance required to be purchased and maintained by the other party in accordance with Article 5 on the basis of non-conformance with the Contract Documents, the objecting party shall so notify the other party in writing within 10 days after receipt of the certificates (or other evidence requested) required by Paragraph 2.01.B. Owner and Contractor shall each provide to the other such additional information in respect of insurance provided as the other may reasonably request. If either party does not purchase or maintain all of the bonds and insurance required of such party by the Contract Documents, such party shall notify the other party in writing of such failure to purchase prior to the start of the Work, or of such failure to maintain prior to any change in the required coverage. Without prejudice to any other right or remedy, the other party may elect to obtain equivalent bonds or insurance to protect such other party's

interests at the expense of the party who was required to provide such coverage, and a Change Order shall be issued to adjust the Contract Price accordingly.

5.10 Partial Utilization, Acknowledgment of Property Insurer

A. If Owner finds it necessary to occupy or use a portion or portions of the Work prior to Substantial Completion of all the Work as provided in Paragraph 14.05, no such use or occupancy shall commence before the insurers providing the property insurance pursuant to Paragraph 5.06 have acknowledged notice thereof and in writing effected any changes in coverage necessitated thereby. The insurers providing the property insurance shall consent by endorsement on the policy or policies, but the property insurance shall not be canceled or permitted to lapse on account of any such partial use or occupancy.

ARTICLE 6 – CONTRACTOR'S RESPONSIBILITIES

6.01 Supervision and Superintendence

- A. Contractor shall supervise, inspect, and direct the Work competently and efficiently, devoting such attention thereto and applying such skills and expertise as may be necessary to perform the Work in accordance with the Contract Documents. Contractor shall be solely responsible for the means, methods, techniques, sequences, and procedures of construction. Contractor shall not be responsible for the negligence of Owner or Engineer in the design or specification of a specific means, method, technique, sequence, or procedure of construction which is shown or indicated in and expressly required by the Contract Documents.
- B. At all times during the progress of the Work, Contractor shall assign a competent resident superintendent who shall not be replaced without written notice to Owner and Engineer except under extraordinary circumstances.

6.02 Labor; Working Hours

- A. Contractor shall provide competent, suitably qualified personnel to survey and lay out the Work and perform construction as required by the Contract Documents. Contractor shall at all times maintain good discipline and order at the Site.
- B. Except as otherwise required for the safety or protection of persons or the Work or property at the Site or adjacent thereto, and except as otherwise stated in the Contract Documents, all Work at the Site shall be performed during regular working hours. Contractor will not permit the performance of Work on a Saturday, Sunday, or any legal holiday without Owner's written consent (which will not be unreasonably withheld) given after prior written notice to Engineer.

6.03 Services, Materials, and Equipment

A. Unless otherwise specified in the Contract Documents, Contractor shall provide and assume full responsibility for all services, materials, equipment, labor, transportation, construction equipment and machinery, tools, appliances, fuel, power, light, heat, telephone, water, sanitary facilities, temporary facilities, and all other facilities and incidentals necessary for the performance, testing, start-up, and completion of the Work.

- B. All materials and equipment incorporated into the Work shall be as specified or, if not specified, shall be of good quality and new, except as otherwise provided in the Contract Documents. All special warranties and guarantees required by the Specifications shall expressly run to the benefit of Owner. If required by Engineer, Contractor shall furnish satisfactory evidence (including reports of required tests) as to the source, kind, and quality of materials and equipment.
- C. All materials and equipment shall be stored, applied, installed, connected, erected, protected, used, cleaned, and conditioned in accordance with instructions of the applicable Supplier, except as otherwise may be provided in the Contract Documents.

6.04 Progress Schedule

- A. Contractor shall adhere to the Progress Schedule established in accordance with Paragraph 2.07 as it may be adjusted from time to time as provided below.
 - 1. Contractor shall submit to Engineer for acceptance (to the extent indicated in Paragraph 2.07) proposed adjustments in the Progress Schedule that will not result in changing the Contract Times. Such adjustments will comply with any provisions of the General Requirements applicable thereto.
 - 2. Proposed adjustments in the Progress Schedule that will change the Contract Times shall be submitted in accordance with the requirements of Article 12. Adjustments in Contract Times may only be made by a Change Order.

6.05 Substitutes and "Or-Equals"

- A. Whenever an item of material or equipment is specified or described in the Contract Documents by using the name of a proprietary item or the name of a particular Supplier, the specification or description is intended to establish the type, function, appearance, and quality required. Unless the specification or description contains or is followed by words reading that no like, equivalent, or "or-equal" item or no substitution is permitted, other items of material or equipment or material or equipment of other Suppliers may be submitted to Engineer for review under the circumstances described below.
 - 1. "Or-Equal" Items: If in Engineer's sole discretion an item of material or equipment proposed by Contractor is functionally equal to that named and sufficiently similar so that no change in related Work will be required, it may be considered by Engineer as an "or-equal" item, in which case review and approval of the proposed item may, in Engineer's sole discretion, be accomplished without compliance with some or all of the requirements for approval of proposed substitute items. For the purposes of this Paragraph 6.05.A.1, a proposed item of material or equipment will be considered functionally equal to an item so named if:
 - a. in the exercise of reasonable judgment Engineer determines that:
 - 1) it is at least equal in materials of construction, quality, durability, appearance, strength, and design characteristics;

- 2) it will reliably perform at least equally well the function and achieve the results imposed by the design concept of the completed Project as a functioning whole; and
- 3) it has a proven record of performance and availability of responsive service.
- b. Contractor certifies that, if approved and incorporated into the Work:
 - 1) there will be no increase in cost to the Owner or increase in Contract Times; and
 - 2) it will conform substantially to the detailed requirements of the item named in the Contract Documents.

2. Substitute Items:

- a. If in Engineer's sole discretion an item of material or equipment proposed by Contractor does not qualify as an "or-equal" item under Paragraph 6.05.A.1, it will be considered a proposed substitute item.
- b. Contractor shall submit sufficient information as provided below to allow Engineer to determine if the item of material or equipment proposed is essentially equivalent to that named and an acceptable substitute therefor. Requests for review of proposed substitute items of material or equipment will not be accepted by Engineer from anyone other than Contractor.
- c. The requirements for review by Engineer will be as set forth in Paragraph 6.05.A.2.d, as supplemented by the General Requirements, and as Engineer may decide is appropriate under the circumstances.
- d. Contractor shall make written application to Engineer for review of a proposed substitute item of material or equipment that Contractor seeks to furnish or use. The application:
 - 1) shall certify that the proposed substitute item will:
 - a) perform adequately the functions and achieve the results called for by the general design,
 - b) be similar in substance to that specified, and
 - c) be suited to the same use as that specified;
 - 2) will state:
 - a) the extent, if any, to which the use of the proposed substitute item will prejudice Contractor's achievement of Substantial Completion on time,
 - b) whether use of the proposed substitute item in the Work will require a change in any of the Contract Documents (or in the provisions of any other direct contract with Owner for other work on the Project) to adapt the design to the proposed substitute item, and

- c) whether incorporation or use of the proposed substitute item in connection with the Work is subject to payment of any license fee or royalty;
- 3) will identify:
 - a) all variations of the proposed substitute item from that specified, and
 - b) available engineering, sales, maintenance, repair, and replacement services; and
- 4) shall contain an itemized estimate of all costs or credits that will result directly or indirectly from use of such substitute item, including costs of redesign and claims of other contractors affected by any resulting change.
- B. Substitute Construction Methods or Procedures: If a specific means, method, technique, sequence, or procedure of construction is expressly required by the Contract Documents, Contractor may furnish or utilize a substitute means, method, technique, sequence, or procedure of construction approved by Engineer. Contractor shall submit sufficient information to allow Engineer, in Engineer's sole discretion, to determine that the substitute proposed is equivalent to that expressly called for by the Contract Documents. The requirements for review by Engineer will be similar to those provided in Paragraph 6.05.A.2.
- C. Engineer's Evaluation: Engineer will be allowed a reasonable time within which to evaluate each proposal or submittal made pursuant to Paragraphs 6.05.A and 6.05.B. Engineer may require Contractor to furnish additional data about the proposed substitute item. Engineer will be the sole judge of acceptability. No "or equal" or substitute will be ordered, installed or utilized until Engineer's review is complete, which will be evidenced by a Change Order in the case of a substitute and an approved Shop Drawing for an "or equal." Engineer will advise Contractor in writing of any negative determination.
- D. Special Guarantee: Owner may require Contractor to furnish at Contractor's expense a special performance guarantee or other surety with respect to any substitute.
- E. Engineer's Cost Reimbursement: Engineer will record Engineer's costs in evaluating a substitute proposed or submitted by Contractor pursuant to Paragraphs 6.05.A.2 and 6.05.B. Whether or not Engineer approves a substitute so proposed or submitted by Contractor, Contractor shall reimburse Owner for the reasonable charges of Engineer for evaluating each such proposed substitute. Contractor shall also reimburse Owner for the reasonable charges of Engineer for making changes in the Contract Documents (or in the provisions of any other direct contract with Owner) resulting from the acceptance of each proposed substitute.
- F. *Contractor's Expense*: Contractor shall provide all data in support of any proposed substitute or "or-equal" at Contractor's expense.
- 6.06 Concerning Subcontractors, Suppliers, and Others
 - A. Contractor shall not employ any Subcontractor, Supplier, or other individual or entity (including those acceptable to Owner as indicated in Paragraph 6.06.B), whether initially or as a replacement, against whom Owner may have reasonable objection. Contractor shall not be

- required to employ any Subcontractor, Supplier, or other individual or entity to furnish or perform any of the Work against whom Contractor has reasonable objection.
- B. If the Supplementary Conditions require the identity of certain Subcontractors, Suppliers, or other individuals or entities to be submitted to Owner in advance for acceptance by Owner by a specified date prior to the Effective Date of the Agreement, and if Contractor has submitted a list thereof in accordance with the Supplementary Conditions, Owner's acceptance (either in writing or by failing to make written objection thereto by the date indicated for acceptance or objection in the Bidding Documents or the Contract Documents) of any such Subcontractor, Supplier, or other individual or entity so identified may be revoked on the basis of reasonable objection after due investigation. Contractor shall submit an acceptable replacement for the rejected Subcontractor, Supplier, or other individual or entity, and the Contract Price will be adjusted by the difference in the cost occasioned by such replacement, and an appropriate Change Order will be issued. No acceptance by Owner of any such Subcontractor, Supplier, or other individual or entity, whether initially or as a replacement, shall constitute a waiver of any right of Owner or Engineer to reject defective Work.
- C. Contractor shall be fully responsible to Owner and Engineer for all acts and omissions of the Subcontractors, Suppliers, and other individuals or entities performing or furnishing any of the Work just as Contractor is responsible for Contractor's own acts and omissions. Nothing in the Contract Documents:
 - 1. shall create for the benefit of any such Subcontractor, Supplier, or other individual or entity any contractual relationship between Owner or Engineer and any such Subcontractor, Supplier or other individual or entity; nor
 - 2. shall create any obligation on the part of Owner or Engineer to pay or to see to the payment of any moneys due any such Subcontractor, Supplier, or other individual or entity except as may otherwise be required by Laws and Regulations.
- D. Contractor shall be solely responsible for scheduling and coordinating the Work of Subcontractors, Suppliers, and other individuals or entities performing or furnishing any of the Work under a direct or indirect contract with Contractor.
- E. Contractor shall require all Subcontractors, Suppliers, and such other individuals or entities performing or furnishing any of the Work to communicate with Engineer through Contractor.
- F. The divisions and sections of the Specifications and the identifications of any Drawings shall not control Contractor in dividing the Work among Subcontractors or Suppliers or delineating the Work to be performed by any specific trade.
- G. All Work performed for Contractor by a Subcontractor or Supplier will be pursuant to an appropriate agreement between Contractor and the Subcontractor or Supplier which specifically binds the Subcontractor or Supplier to the applicable terms and conditions of the Contract Documents for the benefit of Owner and Engineer. Whenever any such agreement is with a Subcontractor or Supplier who is listed as a loss payee on the property insurance provided in Paragraph 5.06, the agreement between the Contractor and the Subcontractor or Supplier will contain provisions whereby the Subcontractor or Supplier waives all rights against Owner,

Contractor, Engineer, and all other individuals or entities identified in the Supplementary Conditions to be listed as insureds or loss payees (and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them) for all losses and damages caused by, arising out of, relating to, or resulting from any of the perils or causes of loss covered by such policies and any other property insurance applicable to the Work. If the insurers on any such policies require separate waiver forms to be signed by any Subcontractor or Supplier, Contractor will obtain the same.

6.07 Patent Fees and Royalties

- A. Contractor shall pay all license fees and royalties and assume all costs incident to the use in the performance of the Work or the incorporation in the Work of any invention, design, process, product, or device which is the subject of patent rights or copyrights held by others. If a particular invention, design, process, product, or device is specified in the Contract Documents for use in the performance of the Work and if, to the actual knowledge of Owner or Engineer, its use is subject to patent rights or copyrights calling for the payment of any license fee or royalty to others, the existence of such rights shall be disclosed by Owner in the Contract Documents.
- B. To the fullest extent permitted by Laws and Regulations, Owner shall indemnify and hold harmless Contractor, and its officers, directors, members, partners, employees, agents, consultants, and subcontractors from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals, and all court or arbitration or other dispute resolution costs) arising out of or relating to any infringement of patent rights or copyrights incident to the use in the performance of the Work or resulting from the incorporation in the Work of any invention, design, process, product, or device specified in the Contract Documents, but not identified as being subject to payment of any license fee or royalty to others required by patent rights or copyrights.
- C. To the fullest extent permitted by Laws and Regulations, Contractor shall indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to any infringement of patent rights or copyrights incident to the use in the performance of the Work or resulting from the incorporation in the Work of any invention, design, process, product, or device not specified in the Contract Documents.

6.08 Permits

A. Unless otherwise provided in the Supplementary Conditions, Contractor shall obtain and pay for all construction permits and licenses. Owner shall assist Contractor, when necessary, in obtaining such permits and licenses. Contractor shall pay all governmental charges and inspection fees necessary for the prosecution of the Work which are applicable at the time of opening of Bids, or, if there are no Bids, on the Effective Date of the Agreement. Owner shall pay all charges of utility owners for connections for providing permanent service to the Work.

6.09 Laws and Regulations

- A. Contractor shall give all notices required by and shall comply with all Laws and Regulations applicable to the performance of the Work. Except where otherwise expressly required by applicable Laws and Regulations, neither Owner nor Engineer shall be responsible for monitoring Contractor's compliance with any Laws or Regulations.
- B. If Contractor performs any Work knowing or having reason to know that it is contrary to Laws or Regulations, Contractor shall bear all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such Work. However, it shall not be Contractor's responsibility to make certain that the Specifications and Drawings are in accordance with Laws and Regulations, but this shall not relieve Contractor of Contractor's obligations under Paragraph 3.03.
- C. Changes in Laws or Regulations not known at the time of opening of Bids (or, on the Effective Date of the Agreement if there were no Bids) having an effect on the cost or time of performance of the Work shall be the subject of an adjustment in Contract Price or Contract Times. If Owner and Contractor are unable to agree on entitlement to or on the amount or extent, if any, of any such adjustment, a Claim may be made therefor as provided in Paragraph 10.05.

6.10 Taxes

A. Contractor shall pay all sales, consumer, use, and other similar taxes required to be paid by Contractor in accordance with the Laws and Regulations of the place of the Project which are applicable during the performance of the Work.

6.11 Use of Site and Other Areas

A. Limitation on Use of Site and Other Areas:

- Contractor shall confine construction equipment, the storage of materials and equipment, and
 the operations of workers to the Site and other areas permitted by Laws and Regulations, and
 shall not unreasonably encumber the Site and other areas with construction equipment or
 other materials or equipment. Contractor shall assume full responsibility for any damage to
 any such land or area, or to the owner or occupant thereof, or of any adjacent land or areas
 resulting from the performance of the Work.
- 2. Should any claim be made by any such owner or occupant because of the performance of the Work, Contractor shall promptly settle with such other party by negotiation or otherwise resolve the claim by arbitration or other dispute resolution proceeding or at law.
- 3. To the fullest extent permitted by Laws and Regulations, Contractor shall indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to any claim or action, legal or equitable, brought

by any such owner or occupant against Owner, Engineer, or any other party indemnified hereunder to the extent caused by or based upon Contractor's performance of the Work.

- B. Removal of Debris During Performance of the Work: During the progress of the Work Contractor shall keep the Site and other areas free from accumulations of waste materials, rubbish, and other debris. Removal and disposal of such waste materials, rubbish, and other debris shall conform to applicable Laws and Regulations.
- C. Cleaning: Prior to Substantial Completion of the Work Contractor shall clean the Site and the Work and make it ready for utilization by Owner. At the completion of the Work Contractor shall remove from the Site all tools, appliances, construction equipment and machinery, and surplus materials and shall restore to original condition all property not designated for alteration by the Contract Documents.
- D. Loading Structures: Contractor shall not load nor permit any part of any structure to be loaded in any manner that will endanger the structure, nor shall Contractor subject any part of the Work or adjacent property to stresses or pressures that will endanger it.

6.12 Record Documents

A. Contractor shall maintain in a safe place at the Site one record copy of all Drawings, Specifications, Addenda, Change Orders, Work Change Directives, Field Orders, and written interpretations and clarifications in good order and annotated to show changes made during construction. These record documents together with all approved Samples and a counterpart of all approved Shop Drawings will be available to Engineer for reference. Upon completion of the Work, these record documents, Samples, and Shop Drawings will be delivered to Engineer for Owner.

6.13 Safety and Protection

- A. Contractor shall be solely responsible for initiating, maintaining and supervising all safety precautions and programs in connection with the Work. Such responsibility does not relieve Subcontractors of their responsibility for the safety of persons or property in the performance of their work, nor for compliance with applicable safety Laws and Regulations. Contractor shall take all necessary precautions for the safety of, and shall provide the necessary protection to prevent damage, injury or loss to:
 - 1. all persons on the Site or who may be affected by the Work;
 - 2. all the Work and materials and equipment to be incorporated therein, whether in storage on or off the Site; and
 - 3. other property at the Site or adjacent thereto, including trees, shrubs, lawns, walks, pavements, roadways, structures, utilities, and Underground Facilities not designated for removal, relocation, or replacement in the course of construction.
- B. Contractor shall comply with all applicable Laws and Regulations relating to the safety of persons or property, or to the protection of persons or property from damage, injury, or loss; and

shall erect and maintain all necessary safeguards for such safety and protection. Contractor shall notify owners of adjacent property and of Underground Facilities and other utility owners when prosecution of the Work may affect them, and shall cooperate with them in the protection, removal, relocation, and replacement of their property.

- C. Contractor shall comply with the applicable requirements of Owner's safety programs, if any. The Supplementary Conditions identify any Owner's safety programs that are applicable to the Work.
- D. Contractor shall inform Owner and Engineer of the specific requirements of Contractor's safety program with which Owner's and Engineer's employees and representatives must comply while at the Site.
- E. All damage, injury, or loss to any property referred to in Paragraph 6.13.A.2 or 6.13.A.3 caused, directly or indirectly, in whole or in part, by Contractor, any Subcontractor, Supplier, or any other individual or entity directly or indirectly employed by any of them to perform any of the Work, or anyone for whose acts any of them may be liable, shall be remedied by Contractor (except damage or loss attributable to the fault of Drawings or Specifications or to the acts or omissions of Owner or Engineer or anyone employed by any of them, or anyone for whose acts any of them may be liable, and not attributable, directly or indirectly, in whole or in part, to the fault or negligence of Contractor or any Subcontractor, Supplier, or other individual or entity directly or indirectly employed by any of them).
- F. Contractor's duties and responsibilities for safety and for protection of the Work shall continue until such time as all the Work is completed and Engineer has issued a notice to Owner and Contractor in accordance with Paragraph 14.07.B that the Work is acceptable (except as otherwise expressly provided in connection with Substantial Completion).

6.14 Safety Representative

A. Contractor shall designate a qualified and experienced safety representative at the Site whose duties and responsibilities shall be the prevention of accidents and the maintaining and supervising of safety precautions and programs.

6.15 Hazard Communication Programs

A. Contractor shall be responsible for coordinating any exchange of material safety data sheets or other hazard communication information required to be made available to or exchanged between or among employers at the Site in accordance with Laws or Regulations.

6.16 Emergencies

A. In emergencies affecting the safety or protection of persons or the Work or property at the Site or adjacent thereto, Contractor is obligated to act to prevent threatened damage, injury, or loss. Contractor shall give Engineer prompt written notice if Contractor believes that any significant changes in the Work or variations from the Contract Documents have been caused thereby or are required as a result thereof. If Engineer determines that a change in the Contract Documents is

required because of the action taken by Contractor in response to such an emergency, a Work Change Directive or Change Order will be issued.

6.17 Shop Drawings and Samples

A. Contractor shall submit Shop Drawings and Samples to Engineer for review and approval in accordance with the accepted Schedule of Submittals (as required by Paragraph 2.07). Each submittal will be identified as Engineer may require.

1. Shop Drawings:

- a. Submit number of copies specified in the General Requirements.
- b. Data shown on the Shop Drawings will be complete with respect to quantities, dimensions, specified performance and design criteria, materials, and similar data to show Engineer the services, materials, and equipment Contractor proposes to provide and to enable Engineer to review the information for the limited purposes required by Paragraph 6.17.D.

2. Samples:

- a. Submit number of Samples specified in the Specifications.
- b. Clearly identify each Sample as to material, Supplier, pertinent data such as catalog numbers, the use for which intended and other data as Engineer may require to enable Engineer to review the submittal for the limited purposes required by Paragraph 6.17.D.
- B. Where a Shop Drawing or Sample is required by the Contract Documents or the Schedule of Submittals, any related Work performed prior to Engineer's review and approval of the pertinent submittal will be at the sole expense and responsibility of Contractor.

C. Submittal Procedures:

- 1. Before submitting each Shop Drawing or Sample, Contractor shall have:
 - a. reviewed and coordinated each Shop Drawing or Sample with other Shop Drawings and Samples and with the requirements of the Work and the Contract Documents;
 - b. determined and verified all field measurements, quantities, dimensions, specified performance and design criteria, installation requirements, materials, catalog numbers, and similar information with respect thereto;
 - c. determined and verified the suitability of all materials offered with respect to the indicated application, fabrication, shipping, handling, storage, assembly, and installation pertaining to the performance of the Work; and
 - d. determined and verified all information relative to Contractor's responsibilities for means, methods, techniques, sequences, and procedures of construction, and safety precautions and programs incident thereto.

- 2. Each submittal shall bear a stamp or specific written certification that Contractor has satisfied Contractor's obligations under the Contract Documents with respect to Contractor's review and approval of that submittal.
- 3. With each submittal, Contractor shall give Engineer specific written notice of any variations that the Shop Drawing or Sample may have from the requirements of the Contract Documents. This notice shall be both a written communication separate from the Shop Drawings or Sample submittal; and, in addition, by a specific notation made on each Shop Drawing or Sample submitted to Engineer for review and approval of each such variation.

D. Engineer's Review:

- Engineer will provide timely review of Shop Drawings and Samples in accordance with the Schedule of Submittals acceptable to Engineer. Engineer's review and approval will be only to determine if the items covered by the submittals will, after installation or incorporation in the Work, conform to the information given in the Contract Documents and be compatible with the design concept of the completed Project as a functioning whole as indicated by the Contract Documents.
- 2. Engineer's review and approval will not extend to means, methods, techniques, sequences, or procedures of construction (except where a particular means, method, technique, sequence, or procedure of construction is specifically and expressly called for by the Contract Documents) or to safety precautions or programs incident thereto. The review and approval of a separate item as such will not indicate approval of the assembly in which the item functions.
- 3. Engineer's review and approval shall not relieve Contractor from responsibility for any variation from the requirements of the Contract Documents unless Contractor has complied with the requirements of Paragraph 6.17.C.3 and Engineer has given written approval of each such variation by specific written notation thereof incorporated in or accompanying the Shop Drawing or Sample. Engineer's review and approval shall not relieve Contractor from responsibility for complying with the requirements of Paragraph 6.17.C.1.

E. Resubmittal Procedures:

Contractor shall make corrections required by Engineer and shall return the required number
of corrected copies of Shop Drawings and submit, as required, new Samples for review and
approval. Contractor shall direct specific attention in writing to revisions other than the
corrections called for by Engineer on previous submittals.

6.18 Continuing the Work

A. Contractor shall carry on the Work and adhere to the Progress Schedule during all disputes or disagreements with Owner. No Work shall be delayed or postponed pending resolution of any disputes or disagreements, except as permitted by Paragraph 15.04 or as Owner and Contractor may otherwise agree in writing.

6.19 Contractor's General Warranty and Guarantee

- A. Contractor warrants and guarantees to Owner that all Work will be in accordance with the Contract Documents and will not be defective. Engineer and its officers, directors, members, partners, employees, agents, consultants, and subcontractors shall be entitled to rely on representation of Contractor's warranty and guarantee.
- B. Contractor's warranty and guarantee hereunder excludes defects or damage caused by:
 - 1. abuse, modification, or improper maintenance or operation by persons other than Contractor, Subcontractors, Suppliers, or any other individual or entity for whom Contractor is responsible; or
 - 2. normal wear and tear under normal usage.
- C. Contractor's obligation to perform and complete the Work in accordance with the Contract Documents shall be absolute. None of the following will constitute an acceptance of Work that is not in accordance with the Contract Documents or a release of Contractor's obligation to perform the Work in accordance with the Contract Documents:
 - 1. observations by Engineer;
 - 2. recommendation by Engineer or payment by Owner of any progress or final payment;
 - 3. the issuance of a certificate of Substantial Completion by Engineer or any payment related thereto by Owner;
 - 4. use or occupancy of the Work or any part thereof by Owner;
 - 5. any review and approval of a Shop Drawing or Sample submittal or the issuance of a notice of acceptability by Engineer;
 - 6. any inspection, test, or approval by others; or
 - 7. any correction of defective Work by Owner.

6.20 Indemnification

A. To the fullest extent permitted by Laws and Regulations, Contractor shall indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to the performance of the Work, provided that any such claim, cost, loss, or damage is attributable to bodily injury, sickness, disease, or death, or to injury to or destruction of tangible property (other than the Work itself), including the loss of use resulting therefrom but only to the extent caused by any negligent act or omission of Contractor, any Subcontractor, any Supplier, or any individual or entity directly or indirectly employed by any of them to perform any of the Work or anyone for whose acts any of them may be liable.

- B. In any and all claims against Owner or Engineer or any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors by any employee (or the survivor or personal representative of such employee) of Contractor, any Subcontractor, any Supplier, or any individual or entity directly or indirectly employed by any of them to perform any of the Work, or anyone for whose acts any of them may be liable, the indemnification obligation under Paragraph 6.20.A shall not be limited in any way by any limitation on the amount or type of damages, compensation, or benefits payable by or for Contractor or any such Subcontractor, Supplier, or other individual or entity under workers' compensation acts, disability benefit acts, or other employee benefit acts.
- C. The indemnification obligations of Contractor under Paragraph 6.20.A shall not extend to the liability of Engineer and Engineer's officers, directors, members, partners, employees, agents, consultants and subcontractors arising out of:
 - 1. the preparation or approval of, or the failure to prepare or approve maps, Drawings, opinions, reports, surveys, Change Orders, designs, or Specifications; or
 - 2. giving directions or instructions, or failing to give them, if that is the primary cause of the injury or damage.

6.21 Delegation of Professional Design Services

- A. Contractor will not be required to provide professional design services unless such services are specifically required by the Contract Documents for a portion of the Work or unless such services are required to carry out Contractor's responsibilities for construction means, methods, techniques, sequences and procedures. Contractor shall not be required to provide professional services in violation of applicable law.
- B. If professional design services or certifications by a design professional related to systems, materials or equipment are specifically required of Contractor by the Contract Documents, Owner and Engineer will specify all performance and design criteria that such services must satisfy. Contractor shall cause such services or certifications to be provided by a properly licensed professional, whose signature and seal shall appear on all drawings, calculations, specifications, certifications, Shop Drawings and other submittals prepared by such professional. Shop Drawings and other submittals related to the Work designed or certified by such professional, if prepared by others, shall bear such professional's written approval when submitted to Engineer.
- C. Owner and Engineer shall be entitled to rely upon the adequacy, accuracy and completeness of the services, certifications or approvals performed by such design professionals, provided Owner and Engineer have specified to Contractor all performance and design criteria that such services must satisfy.
- D. Pursuant to this Paragraph 6.21, Engineer's review and approval of design calculations and design drawings will be only for the limited purpose of checking for conformance with performance and design criteria given and the design concept expressed in the Contract Documents. Engineer's review and approval of Shop Drawings and other submittals (except design calculations and design drawings) will be only for the purpose stated in Paragraph 6.17.D.1.

E. Contractor shall not be responsible for the adequacy of the performance or design criteria required by the Contract Documents.

ARTICLE 7 – OTHER WORK AT THE SITE

7.01 Related Work at Site

- A. Owner may perform other work related to the Project at the Site with Owner's employees, or through other direct contracts therefor, or have other work performed by utility owners. If such other work is not noted in the Contract Documents, then:
 - 1. written notice thereof will be given to Contractor prior to starting any such other work; and
 - 2. if Owner and Contractor are unable to agree on entitlement to or on the amount or extent, if any, of any adjustment in the Contract Price or Contract Times that should be allowed as a result of such other work, a Claim may be made therefor as provided in Paragraph 10.05.
- B. Contractor shall afford each other contractor who is a party to such a direct contract, each utility owner, and Owner, if Owner is performing other work with Owner's employees, proper and safe access to the Site, provide a reasonable opportunity for the introduction and storage of materials and equipment and the execution of such other work, and properly coordinate the Work with theirs. Contractor shall do all cutting, fitting, and patching of the Work that may be required to properly connect or otherwise make its several parts come together and properly integrate with such other work. Contractor shall not endanger any work of others by cutting, excavating, or otherwise altering their work and will only cut or alter their work with the written consent of Engineer and the others whose work will be affected. The duties and responsibilities of Contractor under this Paragraph are for the benefit of such utility owners and other contractors to the extent that there are comparable provisions for the benefit of Contractor in said direct contracts between Owner and such utility owners and other contractors.
- C. If the proper execution or results of any part of Contractor's Work depends upon work performed by others under this Article 7, Contractor shall inspect such other work and promptly report to Engineer in writing any delays, defects, or deficiencies in such other work that render it unavailable or unsuitable for the proper execution and results of Contractor's Work. Contractor's failure to so report will constitute an acceptance of such other work as fit and proper for integration with Contractor's Work except for latent defects and deficiencies in such other work.

7.02 Coordination

- A. If Owner intends to contract with others for the performance of other work on the Project at the Site, the following will be set forth in Supplementary Conditions:
 - 1. the individual or entity who will have authority and responsibility for coordination of the activities among the various contractors will be identified;
 - 2. the specific matters to be covered by such authority and responsibility will be itemized; and
 - 3. the extent of such authority and responsibilities will be provided.

B. Unless otherwise provided in the Supplementary Conditions, Owner shall have sole authority and responsibility for such coordination.

7.03 Legal Relationships

- A. Paragraphs 7.01.A and 7.02 are not applicable for utilities not under the control of Owner.
- B. Each other direct contract of Owner under Paragraph 7.01.A shall provide that the other contractor is liable to Owner and Contractor for the reasonable direct delay and disruption costs incurred by Contractor as a result of the other contractor's wrongful actions or inactions.
- C. Contractor shall be liable to Owner and any other contractor under direct contract to Owner for the reasonable direct delay and disruption costs incurred by such other contractor as a result of Contractor's wrongful action or inactions.

ARTICLE 8 – OWNER'S RESPONSIBILITIES

- 8.01 Communications to Contractor
 - A. Except as otherwise provided in these General Conditions, Owner shall issue all communications to Contractor through Engineer.
- 8.02 Replacement of Engineer
 - A. In case of termination of the employment of Engineer, Owner shall appoint an engineer to whom Contractor makes no reasonable objection, whose status under the Contract Documents shall be that of the former Engineer.
- 8.03 Furnish Data
 - A. Owner shall promptly furnish the data required of Owner under the Contract Documents.
- 8.04 Pay When Due
 - A. Owner shall make payments to Contractor when they are due as provided in Paragraphs 14.02.C and 14.07.C.
- 8.05 Lands and Easements; Reports and Tests
 - A. Owner's duties with respect to providing lands and easements and providing engineering surveys to establish reference points are set forth in Paragraphs 4.01 and 4.05. Paragraph 4.02 refers to Owner's identifying and making available to Contractor copies of reports of explorations and tests of subsurface conditions and drawings of physical conditions relating to existing surface or subsurface structures at the Site.
- 8.06 Insurance
 - A. Owner's responsibilities, if any, with respect to purchasing and maintaining liability and property insurance are set forth in Article 5.

8.07 Change Orders

- A. Owner is obligated to execute Change Orders as indicated in Paragraph 10.03.
- 8.08 Inspections, Tests, and Approvals
 - A. Owner's responsibility with respect to certain inspections, tests, and approvals is set forth in Paragraph 13.03.B.
- 8.09 Limitations on Owner's Responsibilities
 - A. The Owner shall not supervise, direct, or have control or authority over, nor be responsible for, Contractor's means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or for any failure of Contractor to comply with Laws and Regulations applicable to the performance of the Work. Owner will not be responsible for Contractor's failure to perform the Work in accordance with the Contract Documents.
- 8.10 Undisclosed Hazardous Environmental Condition
 - A. Owner's responsibility in respect to an undisclosed Hazardous Environmental Condition is set forth in Paragraph 4.06.
- 8.11 Evidence of Financial Arrangements
 - A. Upon request of Contractor, Owner shall furnish Contractor reasonable evidence that financial arrangements have been made to satisfy Owner's obligations under the Contract Documents.
- 8.12 Compliance with Safety Program
 - A. While at the Site, Owner's employees and representatives shall comply with the specific applicable requirements of Contractor's safety programs of which Owner has been informed pursuant to Paragraph 6.13.D.

ARTICLE 9 - ENGINEER'S STATUS DURING CONSTRUCTION

- 9.01 Owner's Representative
 - A. Engineer will be Owner's representative during the construction period. The duties and responsibilities and the limitations of authority of Engineer as Owner's representative during construction are set forth in the Contract Documents.
- 9.02 *Visits to Site*
 - A. Engineer will make visits to the Site at intervals appropriate to the various stages of construction as Engineer deems necessary in order to observe as an experienced and qualified design professional the progress that has been made and the quality of the various aspects of Contractor's executed Work. Based on information obtained during such visits and observations, Engineer, for the benefit of Owner, will determine, in general, if the Work is proceeding in accordance with the Contract Documents. Engineer will not be required to make exhaustive or

continuous inspections on the Site to check the quality or quantity of the Work. Engineer's efforts will be directed toward providing for Owner a greater degree of confidence that the completed Work will conform generally to the Contract Documents. On the basis of such visits and observations, Engineer will keep Owner informed of the progress of the Work and will endeavor to guard Owner against defective Work.

B. Engineer's visits and observations are subject to all the limitations on Engineer's authority and responsibility set forth in Paragraph 9.09. Particularly, but without limitation, during or as a result of Engineer's visits or observations of Contractor's Work, Engineer will not supervise, direct, control, or have authority over or be responsible for Contractor's means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or for any failure of Contractor to comply with Laws and Regulations applicable to the performance of the Work.

9.03 Project Representative

A. If Owner and Engineer agree, Engineer will furnish a Resident Project Representative to assist Engineer in providing more extensive observation of the Work. The authority and responsibilities of any such Resident Project Representative and assistants will be as provided in the Supplementary Conditions, and limitations on the responsibilities thereof will be as provided in Paragraph 9.09. If Owner designates another representative or agent to represent Owner at the Site who is not Engineer's consultant, agent or employee, the responsibilities and authority and limitations thereon of such other individual or entity will be as provided in the Supplementary Conditions.

9.04 Authorized Variations in Work

A. Engineer may authorize minor variations in the Work from the requirements of the Contract Documents which do not involve an adjustment in the Contract Price or the Contract Times and are compatible with the design concept of the completed Project as a functioning whole as indicated by the Contract Documents. These may be accomplished by a Field Order and will be binding on Owner and also on Contractor, who shall perform the Work involved promptly. If Owner or Contractor believes that a Field Order justifies an adjustment in the Contract Price or Contract Times, or both, and the parties are unable to agree on entitlement to or on the amount or extent, if any, of any such adjustment, a Claim may be made therefor as provided in Paragraph 10.05.

9.05 Rejecting Defective Work

A. Engineer will have authority to reject Work which Engineer believes to be defective, or that Engineer believes will not produce a completed Project that conforms to the Contract Documents or that will prejudice the integrity of the design concept of the completed Project as a functioning whole as indicated by the Contract Documents. Engineer will also have authority to require special inspection or testing of the Work as provided in Paragraph 13.04, whether or not the Work is fabricated, installed, or completed.

- 9.06 Shop Drawings, Change Orders and Payments
 - A. In connection with Engineer's authority, and limitations thereof, as to Shop Drawings and Samples, see Paragraph 6.17.
 - B. In connection with Engineer's authority, and limitations thereof, as to design calculations and design drawings submitted in response to a delegation of professional design services, if any, see Paragraph 6.21.
 - C. In connection with Engineer's authority as to Change Orders, see Articles 10, 11, and 12.
 - D. In connection with Engineer's authority as to Applications for Payment, see Article 14.
- 9.07 Determinations for Unit Price Work
 - A. Engineer will determine the actual quantities and classifications of Unit Price Work performed by Contractor. Engineer will review with Contractor the Engineer's preliminary determinations on such matters before rendering a written decision thereon (by recommendation of an Application for Payment or otherwise). Engineer's written decision thereon will be final and binding (except as modified by Engineer to reflect changed factual conditions or more accurate data) upon Owner and Contractor, subject to the provisions of Paragraph 10.05.
- 9.08 Decisions on Requirements of Contract Documents and Acceptability of Work
 - A. Engineer will be the initial interpreter of the requirements of the Contract Documents and judge of the acceptability of the Work thereunder. All matters in question and other matters between Owner and Contractor arising prior to the date final payment is due relating to the acceptability of the Work, and the interpretation of the requirements of the Contract Documents pertaining to the performance of the Work, will be referred initially to Engineer in writing within 30 days of the event giving rise to the question.
 - B. Engineer will, with reasonable promptness, render a written decision on the issue referred. If Owner or Contractor believes that any such decision entitles them to an adjustment in the Contract Price or Contract Times or both, a Claim may be made under Paragraph 10.05. The date of Engineer's decision shall be the date of the event giving rise to the issues referenced for the purposes of Paragraph 10.05.B.
 - C. Engineer's written decision on the issue referred will be final and binding on Owner and Contractor, subject to the provisions of Paragraph 10.05.
 - D. When functioning as interpreter and judge under this Paragraph 9.08, Engineer will not show partiality to Owner or Contractor and will not be liable in connection with any interpretation or decision rendered in good faith in such capacity.
- 9.09 Limitations on Engineer's Authority and Responsibilities
 - A. Neither Engineer's authority or responsibility under this Article 9 or under any other provision of the Contract Documents nor any decision made by Engineer in good faith either to exercise or not

exercise such authority or responsibility or the undertaking, exercise, or performance of any authority or responsibility by Engineer shall create, impose, or give rise to any duty in contract, tort, or otherwise owed by Engineer to Contractor, any Subcontractor, any Supplier, any other individual or entity, or to any surety for or employee or agent of any of them.

- B. Engineer will not supervise, direct, control, or have authority over or be responsible for Contractor's means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or for any failure of Contractor to comply with Laws and Regulations applicable to the performance of the Work. Engineer will not be responsible for Contractor's failure to perform the Work in accordance with the Contract Documents.
- C. Engineer will not be responsible for the acts or omissions of Contractor or of any Subcontractor, any Supplier, or of any other individual or entity performing any of the Work.
- D. Engineer's review of the final Application for Payment and accompanying documentation and all maintenance and operating instructions, schedules, guarantees, bonds, certificates of inspection, tests and approvals, and other documentation required to be delivered by Paragraph 14.07.A will only be to determine generally that their content complies with the requirements of, and in the case of certificates of inspections, tests, and approvals that the results certified indicate compliance with, the Contract Documents.
- E. The limitations upon authority and responsibility set forth in this Paragraph 9.09 shall also apply to the Resident Project Representative, if any, and assistants, if any.

9.10 Compliance with Safety Program

A. While at the Site, Engineer's employees and representatives shall comply with the specific applicable requirements of Contractor's safety programs of which Engineer has been informed pursuant to Paragraph 6.13.D.

ARTICLE 10 - CHANGES IN THE WORK; CLAIMS

10.01 Authorized Changes in the Work

- A. Without invalidating the Contract and without notice to any surety, Owner may, at any time or from time to time, order additions, deletions, or revisions in the Work by a Change Order, or a Work Change Directive. Upon receipt of any such document, Contractor shall promptly proceed with the Work involved which will be performed under the applicable conditions of the Contract Documents (except as otherwise specifically provided).
- B. If Owner and Contractor are unable to agree on entitlement to, or on the amount or extent, if any, of an adjustment in the Contract Price or Contract Times, or both, that should be allowed as a result of a Work Change Directive, a Claim may be made therefor as provided in Paragraph 10.05.

10.02 Unauthorized Changes in the Work

A. Contractor shall not be entitled to an increase in the Contract Price or an extension of the Contract Times with respect to any work performed that is not required by the Contract Documents as amended, modified, or supplemented as provided in Paragraph 3.04, except in the case of an emergency as provided in Paragraph 6.16 or in the case of uncovering Work as provided in Paragraph 13.04.D.

10.03 Execution of Change Orders

- A. Owner and Contractor shall execute appropriate Change Orders recommended by Engineer covering:
 - 1. changes in the Work which are: (i) ordered by Owner pursuant to Paragraph 10.01.A, (ii) required because of acceptance of defective Work under Paragraph 13.08.A or Owner's correction of defective Work under Paragraph 13.09, or (iii) agreed to by the parties;
 - 2. changes in the Contract Price or Contract Times which are agreed to by the parties, including any undisputed sum or amount of time for Work actually performed in accordance with a Work Change Directive; and
 - 3. changes in the Contract Price or Contract Times which embody the substance of any written decision rendered by Engineer pursuant to Paragraph 10.05; provided that, in lieu of executing any such Change Order, an appeal may be taken from any such decision in accordance with the provisions of the Contract Documents and applicable Laws and Regulations, but during any such appeal, Contractor shall carry on the Work and adhere to the Progress Schedule as provided in Paragraph 6.18.A.

10.04 Notification to Surety

A. If the provisions of any bond require notice to be given to a surety of any change affecting the general scope of the Work or the provisions of the Contract Documents (including, but not limited to, Contract Price or Contract Times), the giving of any such notice will be Contractor's responsibility. The amount of each applicable bond will be adjusted to reflect the effect of any such change.

10.05 Claims

- A. Engineer's Decision Required: All Claims, except those waived pursuant to Paragraph 14.09, shall be referred to the Engineer for decision. A decision by Engineer shall be required as a condition precedent to any exercise by Owner or Contractor of any rights or remedies either may otherwise have under the Contract Documents or by Laws and Regulations in respect of such Claims.
- B. *Notice:* Written notice stating the general nature of each Claim shall be delivered by the claimant to Engineer and the other party to the Contract promptly (but in no event later than 30 days) after the start of the event giving rise thereto. The responsibility to substantiate a Claim shall rest with the party making the Claim. Notice of the amount or extent of the Claim, with supporting data

shall be delivered to the Engineer and the other party to the Contract within 60 days after the start of such event (unless Engineer allows additional time for claimant to submit additional or more accurate data in support of such Claim). A Claim for an adjustment in Contract Price shall be prepared in accordance with the provisions of Paragraph 12.01.B. A Claim for an adjustment in Contract Times shall be prepared in accordance with the provisions of Paragraph 12.02.B. Each Claim shall be accompanied by claimant's written statement that the adjustment claimed is the entire adjustment to which the claimant believes it is entitled as a result of said event. The opposing party shall submit any response to Engineer and the claimant within 30 days after receipt of the claimant's last submittal (unless Engineer allows additional time).

- C. *Engineer's Action*: Engineer will review each Claim and, within 30 days after receipt of the last submittal of the claimant or the last submittal of the opposing party, if any, take one of the following actions in writing:
 - 1. deny the Claim in whole or in part;
 - 2. approve the Claim; or
 - 3. notify the parties that the Engineer is unable to resolve the Claim if, in the Engineer's sole discretion, it would be inappropriate for the Engineer to do so. For purposes of further resolution of the Claim, such notice shall be deemed a denial.
- D. In the event that Engineer does not take action on a Claim within said 30 days, the Claim shall be deemed denied.
- E. Engineer's written action under Paragraph 10.05.C or denial pursuant to Paragraphs 10.05.C.3 or 10.05.D will be final and binding upon Owner and Contractor, unless Owner or Contractor invoke the dispute resolution procedure set forth in Article 16 within 30 days of such action or denial.
- F. No Claim for an adjustment in Contract Price or Contract Times will be valid if not submitted in accordance with this Paragraph 10.05.

ARTICLE 11 – COST OF THE WORK; ALLOWANCES; UNIT PRICE WORK

11.01 Cost of the Work

A. Costs Included: The term Cost of the Work means the sum of all costs, except those excluded in Paragraph 11.01.B, necessarily incurred and paid by Contractor in the proper performance of the Work. When the value of any Work covered by a Change Order or when a Claim for an adjustment in Contract Price is determined on the basis of Cost of the Work, the costs to be reimbursed to Contractor will be only those additional or incremental costs required because of the change in the Work or because of the event giving rise to the Claim. Except as otherwise may be agreed to in writing by Owner, such costs shall be in amounts no higher than those prevailing in the locality of the Project, and shall not include any of the costs itemized in Paragraph 11.01.B, and shall include only the following items:

- 1. Payroll costs for employees in the direct employ of Contractor in the performance of the Work under schedules of job classifications agreed upon by Owner and Contractor. Such employees shall include, without limitation, superintendents, foremen, and other personnel employed full time on the Work. Payroll costs for employees not employed full time on the Work shall be apportioned on the basis of their time spent on the Work. Payroll costs shall include, but not be limited to, salaries and wages plus the cost of fringe benefits, which shall include social security contributions, unemployment, excise, and payroll taxes, workers' compensation, health and retirement benefits, bonuses, sick leave, vacation and holiday pay applicable thereto. The expenses of performing Work outside of regular working hours, on Saturday, Sunday, or legal holidays, shall be included in the above to the extent authorized by Owner.
- 2. Cost of all materials and equipment furnished and incorporated in the Work, including costs of transportation and storage thereof, and Suppliers' field services required in connection therewith. All cash discounts shall accrue to Contractor unless Owner deposits funds with Contractor with which to make payments, in which case the cash discounts shall accrue to Owner. All trade discounts, rebates and refunds and returns from sale of surplus materials and equipment shall accrue to Owner, and Contractor shall make provisions so that they may be obtained.
- 3. Payments made by Contractor to Subcontractors for Work performed by Subcontractors. If required by Owner, Contractor shall obtain competitive bids from subcontractors acceptable to Owner and Contractor and shall deliver such bids to Owner, who will then determine, with the advice of Engineer, which bids, if any, will be acceptable. If any subcontract provides that the Subcontractor is to be paid on the basis of Cost of the Work plus a fee, the Subcontractor's Cost of the Work and fee shall be determined in the same manner as Contractor's Cost of the Work and fee as provided in this Paragraph 11.01.
- 4. Costs of special consultants (including but not limited to engineers, architects, testing laboratories, surveyors, attorneys, and accountants) employed for services specifically related to the Work.
- 5. Supplemental costs including the following:
 - a. The proportion of necessary transportation, travel, and subsistence expenses of Contractor's employees incurred in discharge of duties connected with the Work.
 - b. Cost, including transportation and maintenance, of all materials, supplies, equipment, machinery, appliances, office, and temporary facilities at the Site, and hand tools not owned by the workers, which are consumed in the performance of the Work, and cost, less market value, of such items used but not consumed which remain the property of Contractor.
 - c. Rentals of all construction equipment and machinery, and the parts thereof whether rented from Contractor or others in accordance with rental agreements approved by Owner with the advice of Engineer, and the costs of transportation, loading, unloading, assembly, dismantling, and removal thereof. All such costs shall be in accordance with the terms of

- said rental agreements. The rental of any such equipment, machinery, or parts shall cease when the use thereof is no longer necessary for the Work.
- d. Sales, consumer, use, and other similar taxes related to the Work, and for which Contractor is liable, as imposed by Laws and Regulations.
- e. Deposits lost for causes other than negligence of Contractor, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable, and royalty payments and fees for permits and licenses.
- f. Losses and damages (and related expenses) caused by damage to the Work, not compensated by insurance or otherwise, sustained by Contractor in connection with the performance of the Work (except losses and damages within the deductible amounts of property insurance established in accordance with Paragraph 5.06.D), provided such losses and damages have resulted from causes other than the negligence of Contractor, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable. Such losses shall include settlements made with the written consent and approval of Owner. No such losses, damages, and expenses shall be included in the Cost of the Work for the purpose of determining Contractor's fee.
- g. The cost of utilities, fuel, and sanitary facilities at the Site.
- h. Minor expenses such as telegrams, long distance telephone calls, telephone service at the Site, express and courier services, and similar petty cash items in connection with the Work.
- i. The costs of premiums for all bonds and insurance Contractor is required by the Contract Documents to purchase and maintain.
- B. Costs Excluded: The term Cost of the Work shall not include any of the following items:
 - 1. Payroll costs and other compensation of Contractor's officers, executives, principals (of partnerships and sole proprietorships), general managers, safety managers, engineers, architects, estimators, attorneys, auditors, accountants, purchasing and contracting agents, expediters, timekeepers, clerks, and other personnel employed by Contractor, whether at the Site or in Contractor's principal or branch office for general administration of the Work and not specifically included in the agreed upon schedule of job classifications referred to in Paragraph 11.01.A.1 or specifically covered by Paragraph 11.01.A.4, all of which are to be considered administrative costs covered by the Contractor's fee.
 - 2. Expenses of Contractor's principal and branch offices other than Contractor's office at the Site.
 - 3. Any part of Contractor's capital expenses, including interest on Contractor's capital employed for the Work and charges against Contractor for delinquent payments.
 - 4. Costs due to the negligence of Contractor, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable, including but not

limited to, the correction of defective Work, disposal of materials or equipment wrongly supplied, and making good any damage to property.

- 5. Other overhead or general expense costs of any kind and the costs of any item not specifically and expressly included in Paragraphs 11.01.A.
- C. Contractor's Fee: When all the Work is performed on the basis of cost-plus, Contractor's fee shall be determined as set forth in the Agreement. When the value of any Work covered by a Change Order or when a Claim for an adjustment in Contract Price is determined on the basis of Cost of the Work, Contractor's fee shall be determined as set forth in Paragraph 12.01.C.
- D. Documentation: Whenever the Cost of the Work for any purpose is to be determined pursuant to Paragraphs 11.01.A and 11.01.B, Contractor will establish and maintain records thereof in accordance with generally accepted accounting practices and submit in a form acceptable to Engineer an itemized cost breakdown together with supporting data.

11.02 Allowances

A. It is understood that Contractor has included in the Contract Price all allowances so named in the Contract Documents and shall cause the Work so covered to be performed for such sums and by such persons or entities as may be acceptable to Owner and Engineer.

B. Cash Allowances:

1. Contractor agrees that:

- a. the cash allowances include the cost to Contractor (less any applicable trade discounts) of materials and equipment required by the allowances to be delivered at the Site, and all applicable taxes; and
- b. Contractor's costs for unloading and handling on the Site, labor, installation, overhead, profit, and other expenses contemplated for the cash allowances have been included in the Contract Price and not in the allowances, and no demand for additional payment on account of any of the foregoing will be valid.

C. Contingency Allowance:

- 1. Contractor agrees that a contingency allowance, if any, is for the sole use of Owner to cover unanticipated costs.
- D. Prior to final payment, an appropriate Change Order will be issued as recommended by Engineer to reflect actual amounts due Contractor on account of Work covered by allowances, and the Contract Price shall be correspondingly adjusted.

11.03 Unit Price Work

A. Where the Contract Documents provide that all or part of the Work is to be Unit Price Work, initially the Contract Price will be deemed to include for all Unit Price Work an amount equal to

- the sum of the unit price for each separately identified item of Unit Price Work times the estimated quantity of each item as indicated in the Agreement.
- B. The estimated quantities of items of Unit Price Work are not guaranteed and are solely for the purpose of comparison of Bids and determining an initial Contract Price. Determinations of the actual quantities and classifications of Unit Price Work performed by Contractor will be made by Engineer subject to the provisions of Paragraph 9.07.
- C. Each unit price will be deemed to include an amount considered by Contractor to be adequate to cover Contractor's overhead and profit for each separately identified item.
- D. Owner or Contractor may make a Claim for an adjustment in the Contract Price in accordance with Paragraph 10.05 if:
 - 1. the quantity of any item of Unit Price Work performed by Contractor differs materially and significantly from the estimated quantity of such item indicated in the Agreement; and
 - 2. there is no corresponding adjustment with respect to any other item of Work; and
 - Contractor believes that Contractor is entitled to an increase in Contract Price as a result of
 having incurred additional expense or Owner believes that Owner is entitled to a decrease in
 Contract Price and the parties are unable to agree as to the amount of any such increase or
 decrease.

ARTICLE 12 - CHANGE OF CONTRACT PRICE; CHANGE OF CONTRACT TIMES

12.01 Change of Contract Price

- A. The Contract Price may only be changed by a Change Order. Any Claim for an adjustment in the Contract Price shall be based on written notice submitted by the party making the Claim to the Engineer and the other party to the Contract in accordance with the provisions of Paragraph 10.05.
- B. The value of any Work covered by a Change Order or of any Claim for an adjustment in the Contract Price will be determined as follows:
 - 1. where the Work involved is covered by unit prices contained in the Contract Documents, by application of such unit prices to the quantities of the items involved (subject to the provisions of Paragraph 11.03); or
 - 2. where the Work involved is not covered by unit prices contained in the Contract Documents, by a mutually agreed lump sum (which may include an allowance for overhead and profit not necessarily in accordance with Paragraph 12.01.C.2); or
 - 3. where the Work involved is not covered by unit prices contained in the Contract Documents and agreement to a lump sum is not reached under Paragraph 12.01.B.2, on the basis of the Cost of the Work (determined as provided in Paragraph 11.01) plus a Contractor's fee for overhead and profit (determined as provided in Paragraph 12.01.C).

- C. Contractor's Fee: The Contractor's fee for overhead and profit shall be determined as follows:
 - 1. a mutually acceptable fixed fee; or
 - 2. if a fixed fee is not agreed upon, then a fee based on the following percentages of the various portions of the Cost of the Work:
 - a. for costs incurred under Paragraphs 11.01.A.1 and 11.01.A.2, the Contractor's fee shall be 15 percent;
 - b. for costs incurred under Paragraph 11.01.A.3, the Contractor's fee shall be five percent;
 - c. where one or more tiers of subcontracts are on the basis of Cost of the Work plus a fee and no fixed fee is agreed upon, the intent of Paragraphs 12.01.C.2.a and 12.01.C.2.b is that the Subcontractor who actually performs the Work, at whatever tier, will be paid a fee of 15 percent of the costs incurred by such Subcontractor under Paragraphs 11.01.A.1 and 11.01.A.2 and that any higher tier Subcontractor and Contractor will each be paid a fee of five percent of the amount paid to the next lower tier Subcontractor;
 - d. no fee shall be payable on the basis of costs itemized under Paragraphs 11.01.A.4, 11.01.A.5, and 11.01.B;
 - e. the amount of credit to be allowed by Contractor to Owner for any change which results in a net decrease in cost will be the amount of the actual net decrease in cost plus a deduction in Contractor's fee by an amount equal to five percent of such net decrease; and
 - f. when both additions and credits are involved in any one change, the adjustment in Contractor's fee shall be computed on the basis of the net change in accordance with Paragraphs 12.01.C.2.a through 12.01.C.2.e, inclusive.

12.02 Change of Contract Times

- A. The Contract Times may only be changed by a Change Order. Any Claim for an adjustment in the Contract Times shall be based on written notice submitted by the party making the Claim to the Engineer and the other party to the Contract in accordance with the provisions of Paragraph 10.05.
- B. Any adjustment of the Contract Times covered by a Change Order or any Claim for an adjustment in the Contract Times will be determined in accordance with the provisions of this Article 12.

12.03 Delays

A. Where Contractor is prevented from completing any part of the Work within the Contract Times due to delay beyond the control of Contractor, the Contract Times will be extended in an amount equal to the time lost due to such delay if a Claim is made therefor as provided in Paragraph 12.02.A. Delays beyond the control of Contractor shall include, but not be limited to, acts or

- neglect by Owner, acts or neglect of utility owners or other contractors performing other work as contemplated by Article 7, fires, floods, epidemics, abnormal weather conditions, or acts of God.
- B. If Owner, Engineer, or other contractors or utility owners performing other work for Owner as contemplated by Article 7, or anyone for whom Owner is responsible, delays, disrupts, or interferes with the performance or progress of the Work, then Contractor shall be entitled to an equitable adjustment in the Contract Price or the Contract Times, or both. Contractor's entitlement to an adjustment of the Contract Times is conditioned on such adjustment being essential to Contractor's ability to complete the Work within the Contract Times.
- C. If Contractor is delayed in the performance or progress of the Work by fire, flood, epidemic, abnormal weather conditions, acts of God, acts or failures to act of utility owners not under the control of Owner, or other causes not the fault of and beyond control of Owner and Contractor, then Contractor shall be entitled to an equitable adjustment in Contract Times, if such adjustment is essential to Contractor's ability to complete the Work within the Contract Times. Such an adjustment shall be Contractor's sole and exclusive remedy for the delays described in this Paragraph 12.03.C.
- D. Owner, Engineer, and their officers, directors, members, partners, employees, agents, consultants, or subcontractors shall not be liable to Contractor for any claims, costs, losses, or damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) sustained by Contractor on or in connection with any other project or anticipated project.
- E. Contractor shall not be entitled to an adjustment in Contract Price or Contract Times for delays within the control of Contractor. Delays attributable to and within the control of a Subcontractor or Supplier shall be deemed to be delays within the control of Contractor.

ARTICLE 13 – TESTS AND INSPECTIONS; CORRECTION, REMOVAL OR ACCEPTANCE OF DEFECTIVE WORK

13.01 Notice of Defects

A. Prompt notice of all defective Work of which Owner or Engineer has actual knowledge will be given to Contractor. Defective Work may be rejected, corrected, or accepted as provided in this Article 13.

13.02 Access to Work

A. Owner, Engineer, their consultants and other representatives and personnel of Owner, independent testing laboratories, and governmental agencies with jurisdictional interests will have access to the Site and the Work at reasonable times for their observation, inspection, and testing. Contractor shall provide them proper and safe conditions for such access and advise them of Contractor's safety procedures and programs so that they may comply therewith as applicable.

13.03 Tests and Inspections

- A. Contractor shall give Engineer timely notice of readiness of the Work for all required inspections, tests, or approvals and shall cooperate with inspection and testing personnel to facilitate required inspections or tests.
- B. Owner shall employ and pay for the services of an independent testing laboratory to perform all inspections, tests, or approvals required by the Contract Documents except:
 - 1. for inspections, tests, or approvals covered by Paragraphs 13.03.C and 13.03.D below;
 - 2. that costs incurred in connection with tests or inspections conducted pursuant to Paragraph 13.04.B shall be paid as provided in Paragraph 13.04.C; and
 - 3. as otherwise specifically provided in the Contract Documents.
- C. If Laws or Regulations of any public body having jurisdiction require any Work (or part thereof) specifically to be inspected, tested, or approved by an employee or other representative of such public body, Contractor shall assume full responsibility for arranging and obtaining such inspections, tests, or approvals, pay all costs in connection therewith, and furnish Engineer the required certificates of inspection or approval.
- D. Contractor shall be responsible for arranging and obtaining and shall pay all costs in connection with any inspections, tests, or approvals required for Owner's and Engineer's acceptance of materials or equipment to be incorporated in the Work; or acceptance of materials, mix designs, or equipment submitted for approval prior to Contractor's purchase thereof for incorporation in the Work. Such inspections, tests, or approvals shall be performed by organizations acceptable to Owner and Engineer.
- E. If any Work (or the work of others) that is to be inspected, tested, or approved is covered by Contractor without written concurrence of Engineer, Contractor shall, if requested by Engineer, uncover such Work for observation.
- F. Uncovering Work as provided in Paragraph 13.03.E shall be at Contractor's expense unless Contractor has given Engineer timely notice of Contractor's intention to cover the same and Engineer has not acted with reasonable promptness in response to such notice.

13.04 Uncovering Work

- A. If any Work is covered contrary to the written request of Engineer, it must, if requested by Engineer, be uncovered for Engineer's observation and replaced at Contractor's expense.
- B. If Engineer considers it necessary or advisable that covered Work be observed by Engineer or inspected or tested by others, Contractor, at Engineer's request, shall uncover, expose, or otherwise make available for observation, inspection, or testing as Engineer may require, that portion of the Work in question, furnishing all necessary labor, material, and equipment.

- C. If it is found that the uncovered Work is defective, Contractor shall pay all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such uncovering, exposure, observation, inspection, and testing, and of satisfactory replacement or reconstruction (including but not limited to all costs of repair or replacement of work of others); and Owner shall be entitled to an appropriate decrease in the Contract Price. If the parties are unable to agree as to the amount thereof, Owner may make a Claim therefor as provided in Paragraph 10.05.
- D. If, the uncovered Work is not found to be defective, Contractor shall be allowed an increase in the Contract Price or an extension of the Contract Times, or both, directly attributable to such uncovering, exposure, observation, inspection, testing, replacement, and reconstruction. If the parties are unable to agree as to the amount or extent thereof, Contractor may make a Claim therefor as provided in Paragraph 10.05.

13.05 Owner May Stop the Work

A. If the Work is defective, or Contractor fails to supply sufficient skilled workers or suitable materials or equipment, or fails to perform the Work in such a way that the completed Work will conform to the Contract Documents, Owner may order Contractor to stop the Work, or any portion thereof, until the cause for such order has been eliminated; however, this right of Owner to stop the Work shall not give rise to any duty on the part of Owner to exercise this right for the benefit of Contractor, any Subcontractor, any Supplier, any other individual or entity, or any surety for, or employee or agent of any of them.

13.06 Correction or Removal of Defective Work

- A. Promptly after receipt of written notice, Contractor shall correct all defective Work, whether or not fabricated, installed, or completed, or, if the Work has been rejected by Engineer, remove it from the Project and replace it with Work that is not defective. Contractor shall pay all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such correction or removal (including but not limited to all costs of repair or replacement of work of others).
- B. When correcting defective Work under the terms of this Paragraph 13.06 or Paragraph 13.07, Contractor shall take no action that would void or otherwise impair Owner's special warranty and guarantee, if any, on said Work.

13.07 Correction Period

A. If within one year after the date of Substantial Completion (or such longer period of time as may be prescribed by the terms of any applicable special guarantee required by the Contract Documents) or by any specific provision of the Contract Documents, any Work is found to be defective, or if the repair of any damages to the land or areas made available for Contractor's use by Owner or permitted by Laws and Regulations as contemplated in Paragraph 6.11.A is found to be defective, Contractor shall promptly, without cost to Owner and in accordance with Owner's written instructions:

- 1. repair such defective land or areas; or
- 2. correct such defective Work; or
- 3. if the defective Work has been rejected by Owner, remove it from the Project and replace it with Work that is not defective, and
- 4. satisfactorily correct or repair or remove and replace any damage to other Work, to the work of others or other land or areas resulting therefrom.
- B. If Contractor does not promptly comply with the terms of Owner's written instructions, or in an emergency where delay would cause serious risk of loss or damage, Owner may have the defective Work corrected or repaired or may have the rejected Work removed and replaced. All claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such correction or repair or such removal and replacement (including but not limited to all costs of repair or replacement of work of others) will be paid by Contractor.
- C. In special circumstances where a particular item of equipment is placed in continuous service before Substantial Completion of all the Work, the correction period for that item may start to run from an earlier date if so provided in the Specifications.
- D. Where defective Work (and damage to other Work resulting therefrom) has been corrected or removed and replaced under this Paragraph 13.07, the correction period hereunder with respect to such Work will be extended for an additional period of one year after such correction or removal and replacement has been satisfactorily completed.
- E. Contractor's obligations under this Paragraph 13.07 are in addition to any other obligation or warranty. The provisions of this Paragraph 13.07 shall not be construed as a substitute for or a waiver of the provisions of any applicable statute of limitation or repose.

13.08 Acceptance of Defective Work

A. If, instead of requiring correction or removal and replacement of defective Work, Owner (and, prior to Engineer's recommendation of final payment, Engineer) prefers to accept it, Owner may do so. Contractor shall pay all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) attributable to Owner's evaluation of and determination to accept such defective Work (such costs to be approved by Engineer as to reasonableness) and for the diminished value of the Work to the extent not otherwise paid by Contractor pursuant to this sentence. If any such acceptance occurs prior to Engineer's recommendation of final payment, a Change Order will be issued incorporating the necessary revisions in the Contract Documents with respect to the Work, and Owner shall be entitled to an appropriate decrease in the Contract Price, reflecting the diminished value of Work so accepted. If the parties are unable to agree as to the amount thereof, Owner may make a Claim therefor as provided in Paragraph 10.05. If the acceptance occurs after such recommendation, an appropriate amount will be paid by Contractor to Owner.

- A. If Contractor fails within a reasonable time after written notice from Engineer to correct defective Work, or to remove and replace rejected Work as required by Engineer in accordance with Paragraph 13.06.A, or if Contractor fails to perform the Work in accordance with the Contract Documents, or if Contractor fails to comply with any other provision of the Contract Documents, Owner may, after seven days written notice to Contractor, correct, or remedy any such deficiency.
- B. In exercising the rights and remedies under this Paragraph 13.09, Owner shall proceed expeditiously. In connection with such corrective or remedial action, Owner may exclude Contractor from all or part of the Site, take possession of all or part of the Work and suspend Contractor's services related thereto, take possession of Contractor's tools, appliances, construction equipment and machinery at the Site, and incorporate in the Work all materials and equipment stored at the Site or for which Owner has paid Contractor but which are stored elsewhere. Contractor shall allow Owner, Owner's representatives, agents and employees, Owner's other contractors, and Engineer and Engineer's consultants access to the Site to enable Owner to exercise the rights and remedies under this Paragraph.
- C. All claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) incurred or sustained by Owner in exercising the rights and remedies under this Paragraph 13.09 will be charged against Contractor, and a Change Order will be issued incorporating the necessary revisions in the Contract Documents with respect to the Work; and Owner shall be entitled to an appropriate decrease in the Contract Price. If the parties are unable to agree as to the amount of the adjustment, Owner may make a Claim therefor as provided in Paragraph 10.05. Such claims, costs, losses and damages will include but not be limited to all costs of repair, or replacement of work of others destroyed or damaged by correction, removal, or replacement of Contractor's defective Work.
- D. Contractor shall not be allowed an extension of the Contract Times because of any delay in the performance of the Work attributable to the exercise by Owner of Owner's rights and remedies under this Paragraph 13.09.

ARTICLE 14 – PAYMENTS TO CONTRACTOR AND COMPLETION

14.01 Schedule of Values

A. The Schedule of Values established as provided in Paragraph 2.07.A will serve as the basis for progress payments and will be incorporated into a form of Application for Payment acceptable to Engineer. Progress payments on account of Unit Price Work will be based on the number of units completed.

14.02 Progress Payments

A. Applications for Payments:

1. At least 20 days before the date established in the Agreement for each progress payment (but not more often than once a month), Contractor shall submit to Engineer for review an

Application for Payment filled out and signed by Contractor covering the Work completed as of the date of the Application and accompanied by such supporting documentation as is required by the Contract Documents. If payment is requested on the basis of materials and equipment not incorporated in the Work but delivered and suitably stored at the Site or at another location agreed to in writing, the Application for Payment shall also be accompanied by a bill of sale, invoice, or other documentation warranting that Owner has received the materials and equipment free and clear of all Liens and evidence that the materials and equipment are covered by appropriate property insurance or other arrangements to protect Owner's interest therein, all of which must be satisfactory to Owner.

- 2. Beginning with the second Application for Payment, each Application shall include an affidavit of Contractor stating that all previous progress payments received on account of the Work have been applied on account to discharge Contractor's legitimate obligations associated with prior Applications for Payment.
- 3. The amount of retainage with respect to progress payments will be as stipulated in the Agreement.

B. Review of Applications:

- 1. Engineer will, within 10 days after receipt of each Application for Payment, either indicate in writing a recommendation of payment and present the Application to Owner or return the Application to Contractor indicating in writing Engineer's reasons for refusing to recommend payment. In the latter case, Contractor may make the necessary corrections and resubmit the Application.
- 2. Engineer's recommendation of any payment requested in an Application for Payment will constitute a representation by Engineer to Owner, based on Engineer's observations of the executed Work as an experienced and qualified design professional, and on Engineer's review of the Application for Payment and the accompanying data and schedules, that to the best of Engineer's knowledge, information and belief:
 - a. the Work has progressed to the point indicated;
 - b. the quality of the Work is generally in accordance with the Contract Documents (subject to an evaluation of the Work as a functioning whole prior to or upon Substantial Completion, the results of any subsequent tests called for in the Contract Documents, a final determination of quantities and classifications for Unit Price Work under Paragraph 9.07, and any other qualifications stated in the recommendation); and
 - c. the conditions precedent to Contractor's being entitled to such payment appear to have been fulfilled in so far as it is Engineer's responsibility to observe the Work.
- 3. By recommending any such payment Engineer will not thereby be deemed to have represented that:
 - a. inspections made to check the quality or the quantity of the Work as it has been performed have been exhaustive, extended to every aspect of the Work in progress, or

- involved detailed inspections of the Work beyond the responsibilities specifically assigned to Engineer in the Contract Documents; or
- b. there may not be other matters or issues between the parties that might entitle Contractor to be paid additionally by Owner or entitle Owner to withhold payment to Contractor.
- 4. Neither Engineer's review of Contractor's Work for the purposes of recommending payments nor Engineer's recommendation of any payment, including final payment, will impose responsibility on Engineer:
 - a. to supervise, direct, or control the Work, or
 - b. for the means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or
 - c. for Contractor's failure to comply with Laws and Regulations applicable to Contractor's performance of the Work, or
 - d. to make any examination to ascertain how or for what purposes Contractor has used the moneys paid on account of the Contract Price, or
 - e. to determine that title to any of the Work, materials, or equipment has passed to Owner free and clear of any Liens.
- 5. Engineer may refuse to recommend the whole or any part of any payment if, in Engineer's opinion, it would be incorrect to make the representations to Owner stated in Paragraph 14.02.B.2. Engineer may also refuse to recommend any such payment or, because of subsequently discovered evidence or the results of subsequent inspections or tests, revise or revoke any such payment recommendation previously made, to such extent as may be necessary in Engineer's opinion to protect Owner from loss because:
 - a. the Work is defective, or completed Work has been damaged, requiring correction or replacement;
 - b. the Contract Price has been reduced by Change Orders;
 - c. Owner has been required to correct defective Work or complete Work in accordance with Paragraph 13.09; or
 - d. Engineer has actual knowledge of the occurrence of any of the events enumerated in Paragraph 15.02.A.

C. Payment Becomes Due:

1. Ten days after presentation of the Application for Payment to Owner with Engineer's recommendation, the amount recommended will (subject to the provisions of Paragraph 14.02.D) become due, and when due will be paid by Owner to Contractor.

D. Reduction in Payment:

- 1. Owner may refuse to make payment of the full amount recommended by Engineer because:
 - a. claims have been made against Owner on account of Contractor's performance or furnishing of the Work;
 - b. Liens have been filed in connection with the Work, except where Contractor has delivered a specific bond satisfactory to Owner to secure the satisfaction and discharge of such Liens;
 - c. there are other items entitling Owner to a set-off against the amount recommended; or
 - d. Owner has actual knowledge of the occurrence of any of the events enumerated in Paragraphs 14.02.B.5.a through 14.02.B.5.c or Paragraph 15.02.A.
- 2. If Owner refuses to make payment of the full amount recommended by Engineer, Owner will give Contractor immediate written notice (with a copy to Engineer) stating the reasons for such action and promptly pay Contractor any amount remaining after deduction of the amount so withheld. Owner shall promptly pay Contractor the amount so withheld, or any adjustment thereto agreed to by Owner and Contractor, when Contractor remedies the reasons for such action.
- 3. Upon a subsequent determination that Owner's refusal of payment was not justified, the amount wrongfully withheld shall be treated as an amount due as determined by Paragraph 14.02.C.1 and subject to interest as provided in the Agreement.

14.03 Contractor's Warranty of Title

A. Contractor warrants and guarantees that title to all Work, materials, and equipment covered by any Application for Payment, whether incorporated in the Project or not, will pass to Owner no later than the time of payment free and clear of all Liens.

14.04 Substantial Completion

- A. When Contractor considers the entire Work ready for its intended use Contractor shall notify Owner and Engineer in writing that the entire Work is substantially complete (except for items specifically listed by Contractor as incomplete) and request that Engineer issue a certificate of Substantial Completion.
- B. Promptly after Contractor's notification, Owner, Contractor, and Engineer shall make an inspection of the Work to determine the status of completion. If Engineer does not consider the Work substantially complete, Engineer will notify Contractor in writing giving the reasons therefor.
- C. If Engineer considers the Work substantially complete, Engineer will deliver to Owner a tentative certificate of Substantial Completion which shall fix the date of Substantial Completion. There shall be attached to the certificate a tentative list of items to be completed or corrected before final payment. Owner shall have seven days after receipt of the tentative certificate during which to make written objection to Engineer as to any provisions of the certificate or attached list. If,

after considering such objections, Engineer concludes that the Work is not substantially complete, Engineer will within 14 days after submission of the tentative certificate to Owner notify Contractor in writing, stating the reasons therefor. If, after consideration of Owner's objections, Engineer considers the Work substantially complete, Engineer will, within said 14 days, execute and deliver to Owner and Contractor a definitive certificate of Substantial Completion (with a revised tentative list of items to be completed or corrected) reflecting such changes from the tentative certificate as Engineer believes justified after consideration of any objections from Owner.

- D. At the time of delivery of the tentative certificate of Substantial Completion, Engineer will deliver to Owner and Contractor a written recommendation as to division of responsibilities pending final payment between Owner and Contractor with respect to security, operation, safety, and protection of the Work, maintenance, heat, utilities, insurance, and warranties and guarantees. Unless Owner and Contractor agree otherwise in writing and so inform Engineer in writing prior to Engineer's issuing the definitive certificate of Substantial Completion, Engineer's aforesaid recommendation will be binding on Owner and Contractor until final payment.
- E. Owner shall have the right to exclude Contractor from the Site after the date of Substantial Completion subject to allowing Contractor reasonable access to remove its property and complete or correct items on the tentative list.

14.05 Partial Utilization

- A. Prior to Substantial Completion of all the Work, Owner may use or occupy any substantially completed part of the Work which has specifically been identified in the Contract Documents, or which Owner, Engineer, and Contractor agree constitutes a separately functioning and usable part of the Work that can be used by Owner for its intended purpose without significant interference with Contractor's performance of the remainder of the Work, subject to the following conditions:
 - Owner at any time may request Contractor in writing to permit Owner to use or occupy any such part of the Work which Owner believes to be ready for its intended use and substantially complete. If and when Contractor agrees that such part of the Work is substantially complete, Contractor, Owner, and Engineer will follow the procedures of Paragraph 14.04.A-D for that part of the Work.
 - 2. Contractor at any time may notify Owner and Engineer in writing that Contractor considers any such part of the Work ready for its intended use and substantially complete and request Engineer to issue a certificate of Substantial Completion for that part of the Work.
 - 3. Within a reasonable time after either such request, Owner, Contractor, and Engineer shall make an inspection of that part of the Work to determine its status of completion. If Engineer does not consider that part of the Work to be substantially complete, Engineer will notify Owner and Contractor in writing giving the reasons therefor. If Engineer considers that part of the Work to be substantially complete, the provisions of Paragraph 14.04 will apply with respect to certification of Substantial Completion of that part of the Work and the division of responsibility in respect thereof and access thereto.

4. No use or occupancy or separate operation of part of the Work may occur prior to compliance with the requirements of Paragraph 5.10 regarding property insurance.

14.06 Final Inspection

A. Upon written notice from Contractor that the entire Work or an agreed portion thereof is complete, Engineer will promptly make a final inspection with Owner and Contractor and will notify Contractor in writing of all particulars in which this inspection reveals that the Work is incomplete or defective. Contractor shall immediately take such measures as are necessary to complete such Work or remedy such deficiencies.

14.07 Final Payment

A. Application for Payment:

- 1. After Contractor has, in the opinion of Engineer, satisfactorily completed all corrections identified during the final inspection and has delivered, in accordance with the Contract Documents, all maintenance and operating instructions, schedules, guarantees, bonds, certificates or other evidence of insurance, certificates of inspection, marked-up record documents (as provided in Paragraph 6.12), and other documents, Contractor may make application for final payment following the procedure for progress payments.
- 2. The final Application for Payment shall be accompanied (except as previously delivered) by:
 - a. all documentation called for in the Contract Documents, including but not limited to the evidence of insurance required by Paragraph 5.04.B.6;
 - b. consent of the surety, if any, to final payment;
 - c. a list of all Claims against Owner that Contractor believes are unsettled; and
 - d. complete and legally effective releases or waivers (satisfactory to Owner) of all Lien rights arising out of or Liens filed in connection with the Work.
- 3. In lieu of the releases or waivers of Liens specified in Paragraph 14.07.A.2 and as approved by Owner, Contractor may furnish receipts or releases in full and an affidavit of Contractor that: (i) the releases and receipts include all labor, services, material, and equipment for which a Lien could be filed; and (ii) all payrolls, material and equipment bills, and other indebtedness connected with the Work for which Owner or Owner's property might in any way be responsible have been paid or otherwise satisfied. If any Subcontractor or Supplier fails to furnish such a release or receipt in full, Contractor may furnish a bond or other collateral satisfactory to Owner to indemnify Owner against any Lien.

B. Engineer's Review of Application and Acceptance:

1. If, on the basis of Engineer's observation of the Work during construction and final inspection, and Engineer's review of the final Application for Payment and accompanying documentation as required by the Contract Documents, Engineer is satisfied that the Work

has been completed and Contractor's other obligations under the Contract Documents have been fulfilled, Engineer will, within ten days after receipt of the final Application for Payment, indicate in writing Engineer's recommendation of payment and present the Application for Payment to Owner for payment. At the same time Engineer will also give written notice to Owner and Contractor that the Work is acceptable subject to the provisions of Paragraph 14.09. Otherwise, Engineer will return the Application for Payment to Contractor, indicating in writing the reasons for refusing to recommend final payment, in which case Contractor shall make the necessary corrections and resubmit the Application for Payment.

C. Payment Becomes Due:

1. Thirty days after the presentation to Owner of the Application for Payment and accompanying documentation, the amount recommended by Engineer, less any sum Owner is entitled to set off against Engineer's recommendation, including but not limited to liquidated damages, will become due and will be paid by Owner to Contractor.

14.08 Final Completion Delayed

A. If, through no fault of Contractor, final completion of the Work is significantly delayed, and if Engineer so confirms, Owner shall, upon receipt of Contractor's final Application for Payment (for Work fully completed and accepted) and recommendation of Engineer, and without terminating the Contract, make payment of the balance due for that portion of the Work fully completed and accepted. If the remaining balance to be held by Owner for Work not fully completed or corrected is less than the retainage stipulated in the Agreement, and if bonds have been furnished as required in Paragraph 5.01, the written consent of the surety to the payment of the balance due for that portion of the Work fully completed and accepted shall be submitted by Contractor to Engineer with the Application for such payment. Such payment shall be made under the terms and conditions governing final payment, except that it shall not constitute a waiver of Claims.

14.09 Waiver of Claims

- A. The making and acceptance of final payment will constitute:
 - a waiver of all Claims by Owner against Contractor, except Claims arising from unsettled Liens, from defective Work appearing after final inspection pursuant to Paragraph 14.06, from failure to comply with the Contract Documents or the terms of any special guarantees specified therein, or from Contractor's continuing obligations under the Contract Documents; and
 - 2. a waiver of all Claims by Contractor against Owner other than those previously made in accordance with the requirements herein and expressly acknowledged by Owner in writing as still unsettled.

ARTICLE 15 - SUSPENSION OF WORK AND TERMINATION

15.01 Owner May Suspend Work

A. At any time and without cause, Owner may suspend the Work or any portion thereof for a period of not more than 90 consecutive days by notice in writing to Contractor and Engineer which will fix the date on which Work will be resumed. Contractor shall resume the Work on the date so fixed. Contractor shall be granted an adjustment in the Contract Price or an extension of the Contract Times, or both, directly attributable to any such suspension if Contractor makes a Claim therefor as provided in Paragraph 10.05.

15.02 Owner May Terminate for Cause

- A. The occurrence of any one or more of the following events will justify termination for cause:
 - 1. Contractor's persistent failure to perform the Work in accordance with the Contract Documents (including, but not limited to, failure to supply sufficient skilled workers or suitable materials or equipment or failure to adhere to the Progress Schedule established under Paragraph 2.07 as adjusted from time to time pursuant to Paragraph 6.04);
 - 2. Contractor's disregard of Laws or Regulations of any public body having jurisdiction;
 - 3. Contractor's repeated disregard of the authority of Engineer; or
 - 4. Contractor's violation in any substantial way of any provisions of the Contract Documents.
- B. If one or more of the events identified in Paragraph 15.02.A occur, Owner may, after giving Contractor (and surety) seven days written notice of its intent to terminate the services of Contractor:
 - exclude Contractor from the Site, and take possession of the Work and of all Contractor's
 tools, appliances, construction equipment, and machinery at the Site, and use the same to the
 full extent they could be used by Contractor (without liability to Contractor for trespass or
 conversion);
 - 2. incorporate in the Work all materials and equipment stored at the Site or for which Owner has paid Contractor but which are stored elsewhere; and
 - 3. complete the Work as Owner may deem expedient.
- C. If Owner proceeds as provided in Paragraph 15.02.B, Contractor shall not be entitled to receive any further payment until the Work is completed. If the unpaid balance of the Contract Price exceeds all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) sustained by Owner arising out of or relating to completing the Work, such excess will be paid to Contractor. If such claims, costs, losses, and damages exceed such unpaid balance, Contractor shall pay the difference to Owner. Such claims, costs, losses, and damages incurred by Owner will be reviewed by Engineer as to their reasonableness and, when

- so approved by Engineer, incorporated in a Change Order. When exercising any rights or remedies under this Paragraph, Owner shall not be required to obtain the lowest price for the Work performed.
- D. Notwithstanding Paragraphs 15.02.B and 15.02.C, Contractor's services will not be terminated if Contractor begins within seven days of receipt of notice of intent to terminate to correct its failure to perform and proceeds diligently to cure such failure within no more than 30 days of receipt of said notice.
- E. Where Contractor's services have been so terminated by Owner, the termination will not affect any rights or remedies of Owner against Contractor then existing or which may thereafter accrue. Any retention or payment of moneys due Contractor by Owner will not release Contractor from liability.
- F. If and to the extent that Contractor has provided a performance bond under the provisions of Paragraph 5.01.A, the termination procedures of that bond shall supersede the provisions of Paragraphs 15.02.B and 15.02.C.

15.03 Owner May Terminate For Convenience

- A. Upon seven days written notice to Contractor and Engineer, Owner may, without cause and without prejudice to any other right or remedy of Owner, terminate the Contract. In such case, Contractor shall be paid for (without duplication of any items):
 - 1. completed and acceptable Work executed in accordance with the Contract Documents prior to the effective date of termination, including fair and reasonable sums for overhead and profit on such Work;
 - expenses sustained prior to the effective date of termination in performing services and furnishing labor, materials, or equipment as required by the Contract Documents in connection with uncompleted Work, plus fair and reasonable sums for overhead and profit on such expenses;
 - 3. all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) incurred in settlement of terminated contracts with Subcontractors, Suppliers, and others; and
 - 4. reasonable expenses directly attributable to termination.
- B. Contractor shall not be paid on account of loss of anticipated profits or revenue or other economic loss arising out of or resulting from such termination.

15.04 Contractor May Stop Work or Terminate

A. If, through no act or fault of Contractor, (i) the Work is suspended for more than 90 consecutive days by Owner or under an order of court or other public authority, or (ii) Engineer fails to act on any Application for Payment within 30 days after it is submitted, or (iii) Owner fails for 30 days

to pay Contractor any sum finally determined to be due, then Contractor may, upon seven days written notice to Owner and Engineer, and provided Owner or Engineer do not remedy such suspension or failure within that time, terminate the Contract and recover from Owner payment on the same terms as provided in Paragraph 15.03.

B. In lieu of terminating the Contract and without prejudice to any other right or remedy, if Engineer has failed to act on an Application for Payment within 30 days after it is submitted, or Owner has failed for 30 days to pay Contractor any sum finally determined to be due, Contractor may, seven days after written notice to Owner and Engineer, stop the Work until payment is made of all such amounts due Contractor, including interest thereon. The provisions of this Paragraph 15.04 are not intended to preclude Contractor from making a Claim under Paragraph 10.05 for an adjustment in Contract Price or Contract Times or otherwise for expenses or damage directly attributable to Contractor's stopping the Work as permitted by this Paragraph.

ARTICLE 16 – DISPUTE RESOLUTION

16.01 Methods and Procedures

- A. Either Owner or Contractor may request mediation of any Claim submitted to Engineer for a decision under Paragraph 10.05 before such decision becomes final and binding. The mediation will be governed by the Construction Industry Mediation Rules of the American Arbitration Association in effect as of the Effective Date of the Agreement. The request for mediation shall be submitted in writing to the American Arbitration Association and the other party to the Contract. Timely submission of the request shall stay the effect of Paragraph 10.05.E.
- B. Owner and Contractor shall participate in the mediation process in good faith. The process shall be concluded within 60 days of filing of the request. The date of termination of the mediation shall be determined by application of the mediation rules referenced above.
- C. If the Claim is not resolved by mediation, Engineer's action under Paragraph 10.05.C or a denial pursuant to Paragraphs 10.05.C.3 or 10.05.D shall become final and binding 30 days after termination of the mediation unless, within that time period, Owner or Contractor:
 - 1. elects in writing to invoke any dispute resolution process provided for in the Supplementary Conditions; or
 - 2. agrees with the other party to submit the Claim to another dispute resolution process; or
 - 3. gives written notice to the other party of the intent to submit the Claim to a court of competent jurisdiction.

ARTICLE 17 – MISCELLANEOUS

17.01 Giving Notice

A. Whenever any provision of the Contract Documents requires the giving of written notice, it will be deemed to have been validly given if:

- 1. delivered in person to the individual or to a member of the firm or to an officer of the corporation for whom it is intended; or
- 2. delivered at or sent by registered or certified mail, postage prepaid, to the last business address known to the giver of the notice.

17.02 Computation of Times

A. When any period of time is referred to in the Contract Documents by days, it will be computed to exclude the first and include the last day of such period. If the last day of any such period falls on a Saturday or Sunday or on a day made a legal holiday by the law of the applicable jurisdiction, such day will be omitted from the computation.

17.03 Cumulative Remedies

A. The duties and obligations imposed by these General Conditions and the rights and remedies available hereunder to the parties hereto are in addition to, and are not to be construed in any way as a limitation of, any rights and remedies available to any or all of them which are otherwise imposed or available by Laws or Regulations, by special warranty or guarantee, or by other provisions of the Contract Documents. The provisions of this Paragraph will be as effective as if repeated specifically in the Contract Documents in connection with each particular duty, obligation, right, and remedy to which they apply.

17.04 Survival of Obligations

A. All representations, indemnifications, warranties, and guarantees made in, required by, or given in accordance with the Contract Documents, as well as all continuing obligations indicated in the Contract Documents, will survive final payment, completion, and acceptance of the Work or termination or completion of the Contract or termination of the services of Contractor.

17.05 Controlling Law

A. This Contract is to be governed by the law of the state in which the Project is located.

17.06 Headings

A. Article and paragraph headings are inserted for convenience only and do not constitute parts of these General Conditions.

SUPPLEMENTAL GENERAL CONDITIONS

(A) INSURANCE

(1) Contractor's Liability Insurance

As required under Article 5.04 of the General Conditions, Contractor shall purchase and maintain insurance coverage of the types required. In conformance with State Law, policy limits for General Liability, Automobile Liability, and Property Damage shall be not less than \$1,000,000 aggregate.

(2) Worker's Compensation Insurance

Contractor and each subcontractor must submit evidence of coverage per Mississippi State Law.

(3) Property Insurance

The Owner hereby gives notice to the Contractor that the property insurance specified under Article 5.06 of the General Conditions will <u>NOT</u> be purchased and maintained by the Owner.

DELETE Paragraphs 5.06.A and 5.06.B in their entirety and INSERT the following in their place:

- A Contractor shall purchase and maintain property insurance upon the Work at the Site in the amount of the full replacement cost thereof. This insurance shall:
 - include the interests of Owner, Contractor, Subcontractors, Engineer and any other individuals or entities identified herein, and the officers, directors, partners, employees, agents and other consultants and subcontractors of any of them each of whom is deemed to have an insurable interest and shall be listed as an insured or additional insured:
 - 2. in addition to the individuals and entities specified, include additional insured per Paragraph (4), below.
 - 3. be written on a Builder's Risk "all-risk" or open peril or special causes of loss policy form that shall at least include insurance for physical loss and damage to the Work, temporary buildings, falsework, and materials and equipment in transit and shall insure against at least the following perils or causes of loss: fire, lightning, extended coverage, theft, vandalism and malicious mischief, earthquake, collapse, debris removal, demolition occasioned by enforcement of Laws and Regulations, water damage (other than that caused by flood), and such other perils or causes of loss as may be specifically required by the Supplementary Conditions:
 - 4. include expenses incurred in the repair or replacement of any insured property (including but not limited to fees and charges of engineers and architects);
 - 5. cover materials and equipment stored at the Site or at another location that was agreed to in writing by Owner prior to being incorporated in the

- Work, provided that such materials and equipment have been included in an Application for Payment recommended by Engineer;
- 6. allow for partial utilization of the Work by Owner;
- 7. include testing and startup; and
- 8. be maintained in effect until final payment is made unless otherwise agreed to in writing by Owner, Contractor and Engineer with 30 days written notice to each other additional insured to whom a certificate of insurance has been issued.
- Contractor shall be responsible for any deductible or self-insured retention
- 10. The policies of insurance required to be purchased and maintained by Contractor in accordance with this Paragraph shall comply with the requirements of paragraph 5.06C of the General Conditions.
- B. Contractor shall purchase and maintain such equipment breakdown insurance or additional property insurance as may be required by the Supplementary Conditions or Laws and Regulations which will include the interests of Owner, Contractor, Subcontractors, and Engineer, and any other individuals or entities identified in the Supplementary Conditions, and the officers, directors, partners, employees, agents, consultants and subcontractors of each and any of them, each of whom is deemed to have an insurable interest and shall be listed as a loss payee.

(4) Property Insurance

- The City of Pass Christian and Overstreet & Associates, PLLC shall be listed as additional insured on all policies.
- (5) A Certificate of Insurance with the appropriate modifications required for acceptance is provided as Figure 5.03.C.

FIGURE 5.03.C SAMPLE CERTIFICATE OF INSURANCE

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(B) TIME FOR COMPLETION AND LIQUIDATED DAMAGES

- (1) It is hereby understood and mutually agreed, by and between the Contractor and the Owner, that the date of beginning and the time for completion as specified in the Contract of the work to be done hereunder are ESSENTIAL CONDITIONS of this contract; and it is further mutually understood and agreed that the work embraced in this contract shall be commenced on a date to be specified in the Notice to Proceed.
- (2) The Contractor agrees that said work shall be prosecuted regularly, diligently and uninterruptedly at such rate of progress as will insure full completion thereof within the time specified. It is expressly understood and agreed, by and between the Contractor and the Owner, that the time for the completion of the work described herein is a reasonable time for the completion of the same, taking into consideration the average climatic range and usual industrial conditions prevailing in this locality.
- (3) If the said Contractor shall neglect, fail or refuse to complete the work within the time herein specified, or any proper extensions thereof granted by the Owner, then the Contractor does hereby agree, as a part consideration for the awarding of this contract, to pay to the Owner the amount specified for such breach of contract as hereinafter set forth, for each and every calendar day that the Contractor shall be in default after the time stipulated in the contract for completing the work. The said amount is fixed and agreed upon by and between the Contractor and the Owner because of the impracticability and extreme difficulty of fixing and ascertaining the actual damages the Owner would in such event sustain, and said amount is agreed to be the amount of damages which the Owner would sustain and said amount shall be retained from time to time by the Owner from current periodical estimates.
- (4) It is further agreed that time is of the essence of each and every portion of this contract and of the specifications wherein a definite and certain length of time is fixed for the performance of any act whatsoever; and whereunder the contract any additional time is allowed for the completion of any work, the new time limit fixed by such extension shall be of the essence of this contract. Provided, that the Contractor shall not be charged with liquidated damages or any excess cost when the Owner determines that the Contractor is without fault and the Contractor's reasons for the time extension are acceptable to the Owner; provided further, that the Contractor shall not be charged with liquidated damages of any excess when the delay in completion of the work is due:
 - A. To the failure of the Owner to deliver to the Contractor, on or before the date for the work to be commenced as specified in the NOTICE TO PROCEED, all of the materials and equipment which the Owner is to furnish to the Contractor as provided in the Contract Documents. Any such delay shall constitute an automatic extension of the Contract Time by an amount of time corresponding to the delay.
 - B. To any preference, priority or allocation order duly issued by the Government.
 - C. To unforeseeable cause beyond the control and without the fault or negligence of the Contractor, including, but not restricted to, acts of God, or of the public enemy, acts of the Owner, acts of another Contractor in the performance of a contract with the Owner, fires, floods, epidemics, quarantine restrictions, strikes, freight embargoes, and severe weather, and
 - D. To any delays of subcontractors or suppliers occasioned by any of the causes specified in sub-sections (a), (b) and (c) of this article.

- (5) Provided, further, that the Contractor shall, within ten (10) days from the beginning of such delay, unless the Owner shall grant a further period of time prior to the date of final settlement of the contract, notify the Owner, in writing, of the causes of the delay, who shall ascertain the facts and extent of the delay and notify the Contractor within a reasonable time of its decision in the matter.
- (6) If at any time during the project, the Contractor fails to complete any activity by its latest completion date as indicated on the project schedule, he will be required, within 7 days, to submit to the Engineer a written statement as to how and when he plans to reorganize his work force to return to the Current Overall Schedule.
- (7) Whenever it becomes apparent from the current monthly progress evaluation and updated schedule data that the Contract completion date will not be met, the Contractor shall be required to take some or all of the following actions as approved by Owner:
 - Increase construction manpower in such quantities and crafts as shall substantially eliminate the backlog of work.
 - Increase the number of working hours per shift, shifts per work day, work days per week, or the amount of construction or any combination of the foregoing sufficient to substantially eliminate the backlog of work.
 - Reschedule work items to achieve concurrency of the accomplishment
- (8) The addition of equipment or construction forces, increasing the working hours or any other method, manner or procedure to return to the current Overall Schedule shall not be considered a justification for a Change Order nor shall be treated as an acceleration order.

(C) <u>RETAINAGE</u>

A certificate of deposit in lieu of retainage withheld will not be acceptable on this project.

(D) <u>APPLICATION FOR PROGRESS PAYMENT</u>

The contractor shall be required to submit updated record drawings and an updated Overall Schedule with each application for progress payment. Failure to do so will result in the delay of processing the payment application. As required by Article 14.02.A.2, of the General Conditions, each application for progress payment shall contain the following notarized affidavit, or some version thereof, regarding payment of debts and claims.

CONTRACTOR'S AFFIDAVIT OF PAYMENT OF DEBTS AND CLAIMS AND WAIVER OF LIENS

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TO: (Owner)	City of Pass 0	Christian		ENGINEERIC PROJECT NO	
			<u> </u>	ENGINEER'S PROJECT NO. CONTRACT FOR: CONTRACT DATE:	Entire Project
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BY:					_
Subscribed and this	sworn to before	me		day of	2020.
Nota	ary Public:				
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(E) STORED MATERIALS

In the General Conditions, Article 14.02, add the following paragraph 14.02.A.4 related to payment of stored materials:

(1) No payment for stored materials will be allowed on this project.

(F) CONTRACTORS GENERAL WARRANTY AND GUARANTEE

ADD the following new paragraph immediately after paragraph 6.19.C.7 of the General Conditions:

6.19.C.8 Unless additional warranties are included in the technical specifications, the contractor shall guarantee the Work for a period of one-year following Final Payment.

(G) SUBSTANTIAL COMPLETION

In the General Conditions, Substantial Completion, Article 14.04 Delete the following and any reference thereto:

- 1. "(except for items specifically listed by CONTRACTOR as incomplete)"
- 2. "(with a revised tentative list of items to be completed or corrected)"

(H) **DEFINITIONS**

In the General Conditions, Article 1 Definitions, Paragraph 1.01.A.45, replace the paragraph with the following:

"Substantial Completion - The entire Work included in the project and as specified on the bid form has progressed to the point where, in the opinion of ENGINEER as evidenced by ENGINEER's definitive certificate of Substantial Completion, it is sufficiently complete, in accordance with the Contract Documents, so that the entire Work, can be utilized for the purposes for which it is intended and no pay items on the bid form remain to be completed. The term "substantially complete" as applied to all of the Work refers to Substantial Completion thereof."

In the General Conditions, Article 1 Definitions, Paragraph 1.01.A.51, replace the paragraph with the following:

"Work - The entire construction, including restoration, required to be provided under the Contract Documents. Work includes and is the result of performing or providing all labor, services, and documentation necessary to produce such construction, and furnishing, installing, and incorporating all materials and equipment into such construction, all as required by the Contract Documents."

(I) TESTS AND INSPECTIONS

In the General Conditions, Section 13.03. Delete paragraphs 13.03.B.1, through 13.03.B.3 and revise the first paragraph of this section to read as follows:

13.03.B Contractor shall employ and pay for the services of an independent testing laboratory, subject to the approval of the Engineer, to perform all inspections, tests, or approvals as required to demonstrate compliance with the Contract Documents. The Owner and the Engineer will not be responsible for compensation of or scheduling the services of an independent testing laboratory.

(J) REPORTING AND RESOLVING DISCREPANCIES

In the General Conditions, Paragraph 3.03.B. Add the following new language at the end of this section:

3.03.B.1.c Whenever the Contract Documents contain contradictions or discrepancies within the document, the most stringent means or methods, as determined by the Engineer, shall be applied.

(K) <u>COPIES OF DOCUMENTS</u>

In the General Conditions, Article 2.02. Amend the language in the first sentence of Paragraph 2.02.A to read as follows:

Change the language to read from "up to ten" to "up to three".

(L) SUBSURFACE AND PHYSICAL CONDITIONS

In the General Conditions, Section 4.02.A.1. Delete this paragraph and replace with the following:

No reports or explorations or tests of subsurface conditions at or contiguous to the Site are known to the Engineer or Owner.

(M) REVIEW OF APPLICATIONS FOR PROGRESS PAYMENT

In the General Conditions, Article 14.02, paragraph 14.02.C.1. Change the language from:

"Ten days after presentation of the Application for Payment to Owner" to "Thirty days after approval of the Application for Payment by Owner".

(N) ENUMERATION OF PLANS, SPECIFICATIONS AND ADDENDA

Following are the Plans, Specifications and Addenda which form a part of this contract.

<u>DRAWINGS</u> NONE

CONTRACT DOCUMENTS AND SPECIFICATIONS

Advertisement for Bids	•		1, incl.
Information for Bidders Bid Proposal	· ·		13, incl. 6, incl.
Bid Bond	Pages	1 to	2, incl.
Contract	Pages	1 to	9. incl.

Performance Bond	Pages	1 to	2, incl.
Payment Bond	Pages	1 to	2, incl.
General Conditions	Pages	1 to	68, incl.
Supplemental General Conditions	Pages	1 to	9, incl.
Special Conditions	Pages	1 to	7, incl.
Technical Specifications	Pages	1-1 to	4-2, incl.

SPECIAL CONDITIONS

(A) SCOPE OF WORK

- (1) This contract consists of furnishing all labor, materials, tools, equipment and incidentals necessary to construct the project herein specified and/or as shown on the accompanying drawings.
- (2) It is the intent of the Contract Documents that the Contractor shall furnish to the Owner a complete job with all necessary items of work completed as set forth in the Drawings and Contract Documents.

(B) LOCATION OF WORK

(1) This work is located throughout the City of Pass Christian.

(C) ACCESS AND COORDINATION WITH OTHERS

- (1) Contractor will have access to each individual site where new water meters are to be installed. Most of these are located on public road right-of-way, and some are on easements to the Owner. No meters are located within private homes or other difficultto-access areas.
- (2) Owner will continue to operate its municipal water system throughout the contract period. Owner will continue to manually read water meters and process utility bills until completion and final acceptance of the project, at which time Owner will commence use of the new remote-reading and bill processing equipment and software. During the construction period, it is recognized that some new water meters will be installed by Contractor. Contractor will be responsible for the maintenance of these new meters until final project acceptance, but Owner will manually read the new meters per his regular schedule.

(D) EXISTING UTILITIES

- (1) Little or no major excavation is expected to be required under this project, except for minor manual excavation around some meters. However, Contractor shall be responsible for complying with all applicable laws regarding construction excavation.
- (2) Damage caused by the Contractor to Owner owned water and sewer facilities shall be repaired by the Contractor at his expense, subject to the inspection and approval of the Owner's General Manager and his staff.
- (3) Power, telephone, fiber optics, gas, TV cable and other facilities in the project area are owned by private utility companies. The Contractor will be required to coordinate with the various utility owners to obtain field location of utility lines in the project area in advance of construction, and must allow a reasonable time to accomplish unforeseen needed adjustments. Contractor is responsible for repairs or costs incurred by others for repair of any utility lines damaged by Contractor.

(E) ABBREVIATIONS

(1) Wherever the following abbreviations are used, with or without periods, in these specifications or other contract documents, they are to be construed the same as the respective expressions represented:

A.A.S.H.T.O. -American Association of State Highway and

Transportation Officials

A.C.I. -American Concrete Institute

ANSI - American National Standards Institute

A.S.A. -American Standards Association

A.S.T.M. -American Society for Testing and Materials

A.W.W.A.. -American Water Works Association

E.P.A. -Environmental Protection Agency

Modified Procter Density -ASTM D1557, Modified AASTHO

M.D.O.T. -Mississippi State Highway Department Standard

(formerly M.S.H.D.) Specifications, 1990 Edition

M.S.D.H. -Mississippi State Department of Health

O.S.H.A. -Occupational Safety & Health Administration

(F) <u>SUPERVISION & EMERGENCY RESPONSE</u>

(1) The Contractor shall designate an individual as Project Superintendent who is responsible for all construction operations of the entire project and is authorized to make minor field decisions and commitments on Contractor's behalf. He, or an authorized agent, shall be present at all times when the work is in progress. Readily accessible copies of both the contract documents and the latest approved working drawings shall be kept on the job site at all times.

(G) CLEANING UP

- (1) The Contractor shall keep the premises free from accumulations of waste materials, rubbish and other debris resulting from the work, and at the completion of the work he shall remove all waste materials, rubbish and debris from and about the premises as well as all tools, construction equipment and machinery, and all surplus materials, and shall leave the site clean and ready for occupancy by Owner.
- (2) Contractor shall restore to their original condition those portions of the site not designated for alterations by the contract documents.
- (3) Contractor shall restore to their original condition all disturbed facilities, including various types of pavements, pavement markings, driveways, curbs, sidewalks, drainage facilities, fences, grassed areas, etc., in a prompt manner during the course of construction.

(H) PROTECTION OF AREAS

- (1) The Contractor shall keep his operations within those areas bounded by easement and/or property lines and designated for the construction of the project. All resources of the site shall be protected at all times and altered and removed only as designated in the Contract Documents.
- (2) Contractor will be responsible for the preservation of all public and private property and will use every precaution necessary to prevent damage thereto. If any direct or indirect damage is done to public or private property by or on account of any act, omission, neglect, or misconduct in the execution of the work on the part of the Contractor, such property will be restored by the Contractor, at the Contractor's expense, to a condition similar or equal to that existing before the damage was done, or Contractor will make good the damage in other manner acceptable to the Engineer.

(I) <u>RESTORATION OF AREAS</u>

- (1) Features and resources of the landscape, such as trees that have been damaged during construction of the project, shall be restored by the Contractor as nearly as good as the original, so that after project completion the appearance will be natural and not distracting.
- (2) The Contractor shall obliterate all signs of temporary work areas, access or haul roads, waste materials and do grading, seeding, etc. that is necessary to blend in with adjacent features. All such disturbed areas are to be restored at the very earliest time practical during construction.

(J) CONSTRUCTION LAYOUT

- (1) Owner shall provide engineering surveys for construction to establish reference points which in his judgment are necessary to enable the Contractor to proceed with the work. Contractor shall be responsible for surveying and laying out the work, shall protect and preserve the established reference points and shall make no changes or relocation's without the prior written approval of the Owner. He shall report to the Engineer whenever any reference point is lost or destroyed or requires relocation because of necessary changes in grades or locations. The Contractor shall replace and accurately relocate all reference points so lost, destroyed or moved.
- (2) The Drawings indicate the required dimensions and elevations of the work. Contractor shall be solely responsible for the detailed horizontal and vertical stakeout of the work.

(K) EROSION CONTROL

- (1) The Contractor shall, at all times, employ "Best Management Practices" (BMP's) for environmental protection while completing the work required by the contract documents.
- (2) The Contractor's work plan must cover his proposals for controlling and minimizing erosion and siltation damages during construction. Where appropriate, or required, certain temporary sediment control measures such as berms, dikes, drains, basins, etc. shall be provided and maintained until permanent facilities are provided. All temporary bridges or culverts must be removed when the work is completed. The

extent of the area exposed by clearing, grubbing, or grading at any one time, shall be kept to a reasonable minimum. Also see Technical Specifications for additional specific requirements.

(L) <u>CERTIFIED CHEMICALS</u>

(1) All chemical of whatever nature used during project construction or furnished for project operation must show EPA or USDA approval certification. Their use and disposal of all residues shall be in strict compliance with instructions.

(M) SANITARY FACILITY

(1) Contractor shall provide a portable toilet facility (Port-O-Let or other) on the job site for the duration of the job and remove the facility upon completion of the project.

(N) SAFETY

(1) Contractor shall at all times provide for the safety of his own workers, Owner's operating personnel, and the public.

(O) SUBMITTALS

- (1) The successful bidder shall, within 10 calendar days following the Notice of Award, submit to the Engineer a project schedule demonstrating timely performance of the work within the contract time, with a projected cash flow.
- (2) Requirements of this section are in addition to any specific requirements for submittals specified in other sections of these Contract Documents.
- (3) Data submitted shall have sufficient detail for determination of compliance with the Contract Documents.
- (4) Review of substitutions, schedules and lists of materials submitted or requested by the Contractor shall not add to the Contract amount, and any additional costs that may result therefrom shall be solely the obligation of the Contractor.
- (5) The Owner shall not be responsible for providing engineering or other services to protect the Contractor from additional costs from accruing from such approvals.
- (6) The Owner is not precluded by virtue of review, acceptance, or approval, from obtaining a credit for construction savings resulting from allowed concessions in the work or materials therefore.
- (7) No equipment or material for which listings, drawings, or descriptive material are required shall be fabricated, purchased, or installed until the Engineer has on hand, copies of such approved lists and appropriately stamped shop drawings.
- (8) Submittals will be acted upon by the Engineer as promptly as possible, and in all cases within 20 days of receipt and returned to the Contractor. Delays caused by the need for resubmittals shall not constitute reason for an extension of Contract time.

(P) RECORD DRAWINGS

(1) The Specifications provide that the Contractor shall keep a detailed log of data for the existing water meters removed and replaced under this contract. Copies of this log shall be submitted daily to the Owner, and upon request to the Engineer.

(Q) OVERALL CONSTRUCTION SCHEDULE

- (1) The Contractor shall prepare and submit to the Engineer within 10 days after the Notice to Proceed and before starting construction, his Overall Construction Schedule (Overall Schedule). The Overall Schedule shall be comprised of preparatory and construction to operations covering all work to be done in connection with the Contract including submittal dates, equipment delivery, testing, etc.
- (2) Failure to submit the Overall Schedule or subsequent updates shall be considered cause for withholding any partial payments due or that may become due under the Contract in accordance with the General Conditions.

(R) CASH FLOW

- (1) With the initial Overall Schedule submittal and each monthly update, the Contractor shall also submit a cash flow summary. The cash flow summary shall be based on the submitted Overall Schedule and equal in total to the Contractor's bid plus approved Change Orders. Expected payment requests for each month shall be included, as well as the cumulative payment requests to date for each month of the project. The net monthly payment request and cumulative payment requests shall also be shown after deducting retainage.
- (2) Failure to submit an acceptable cash flow summary shall be cause for withholding any partial payments due or that may become due under the Contract.

(S) PROGRESS REVIEW MEETING

- (1) Once each month on a date established by the Engineer, a meeting will be held at which time the schedule will be reviewed. The meeting shall be attended by the Contractor's project manager and superintendent and those major subcontractors as determined by the Engineer to be necessary at the time.
- (2) Prior to the meeting, the Contractor shall obtain information to update the Overall Schedule to reflect the progress to date. The updated schedule shall be available at the meeting for review. To update the Overall Schedule, the Contractor shall:
 - (a) Enter actual start and completion dates, days, number of shifts used for those activities started and/or completed during the previous reporting period;
 - (b) For activities in progress, indicate the percentage complete to date. Review and revise as necessary, the remaining duration of the work from the update to the estimated completion date;
 - (c) For activities not yet started, review and revise as necessary, the durations and estimated start and completion dates;
 - (d) Add authorized Change Orders;
 - (e) Updated status information shall be annotated on the Overall Schedule in a manner that the Overall Schedule shall graphically depict the current status of the work.

- (3) The monthly submittal to the Engineer shall be accompanied by a written report. The report shall be brief and shall include, but not be limited to the following information:
 - (a) Activities completed this reporting period
 - (b) Activities in progress this reporting period
 - (c) Activities scheduled for the next reporting period
 - (d) Description of problem areas
 - (e) Current and anticipated delays including causes, corrective action and schedule adjustments and the impact of the delay on the Overall Schedule and completion dates;
 - (f) Changes in construction sequence
 - (g) Pending items and their status, including: change orders, permits, contract extensions, etc.
 - (h) Status of contract completion dates including: number of days ahead or behind of schedule
 - (i) Revised cash flow information
- (4) If at any time during the project, the Contractor fails to complete any activity by its latest completion date, he will be required, within 7 days, to submit to the Engineer a written statement as to how and when he plans to reorganize his work force to return to the Current Overall Schedule.
- (5) Whenever it becomes apparent from the current monthly progress evaluation and updated schedule data that the Contract completion date will not be met, the Contractor shall take some or all of the following actions as approved by Owner:
 - (a) Increase construction manpower in such quantities and crafts as shall substantially eliminate the backlog of work.
 - (b) Increase the number of working hours per shift, shifts per work day, work days per week, or the amount of construction or any combination of the foregoing sufficient to substantially eliminate the backlog of work.
 - (c) Reschedule work items to achieve concurrency of the accomplishment
- (6) The addition of equipment or construction forces, increasing the working hours or any other method, manner or procedure to return to the current Overall Schedule shall not be considered a justification for a Change Order or treated as an acceleration order.
- (7) Narrative Report Outline
 - (a) Contractor's transmittal letter
 - (b) Schedule narrative referring to each activity on the Overall Schedule including:
 - 1. Activities completed this reporting period
 - 2. Activities in progress this reporting period
 - 3. Activities schedule next reporting period
 - (c) Description of any problem areas
 - (d) Current and anticipated delays
 - 1. Cause of the delay

- 2. Corrective action and schedule adjustments to correct the delay
- 3. Impact of the delay on other activities, milestones and completion dates
- (e) Change in construction sequence
- (f) Pending items and status thereof
 - 1. Permits
 - Change Orders
 - 3. Time extensions
 - 4. Other
- (g) Contract completion date status
 - 1. Ahead of schedule and number of days
 - 2. Behind schedule and number of days
- (h) Other project or scheduling concerns
- (i) Including reviewed and updated Overall Schedule
- (j) Progress Quality Chart (if required)
- (k) Revised cash flow information
- (I) Other

(T) REASONABLY IMPLIED PARTS OF THE WORK SHALL BE DONE THOUGH ABSENT FROM SPECIFICATIONS

(1) Any part or item of the work which is reasonably implied or normally required to make the project satisfactorily operable and functional shall be performed by the Contractor and the expense thereof shall be included in the applicable unit prices or lump sum prices bid for the work. It is the intent of these specifications to provide the Owner with complete operable systems, subsystems, and other items of work. All miscellaneous appurtenances and other items of work that are incidental to meeting the intent of these specifications shall be considered as having been included in the applicable unit prices or lump sum prices bid for the work even though these appurtenances and items may not be specifically called for in the specifications.

ITEM NO. 1

WATER METER

(A) SCOPE OF WORK

(1) This item shall consist of the furnishing labor, equipment, materials, etc. for the removal and replacement of new commercial-account, water meters of the types and sizes specified, complete with an Automatic Meter Reading (AMR) register unit with integral radio.

(B) MATERIALS

- (1) Water meters and registers shall be designed and intended for the measurement of potable water, situated in an underground outdoor meter vault.
- (2) Commercial water meters between ¾" and 1" sizes shall be solid state, battery operated, electromagnetic type conforming with AWWA C700 and C710. Meters shall also have the following characteristics:
 - (a) The external housing of the meter shall be an integrated unit that incorporates the electronic register and measuring device encased in a thermoplastic external case. The integrated unit shall be fully sealed and not removable from the external housing.
 - (b) Meters shall have a 20-year life cycle, along with a 20-year battery life quarantee.
 - (c) Interior parts shall be manufactured of engineered plastic stable at any temperature up to 120°F without warp or deformity. Internal metal parts shall be of stainless steel.
 - (d) The overall length of the meter shall be 7-½" for ¾" meters, and 9" for 1" meters. End connections shall be standard meter male thread.
 - (e) Manufacturer's specifications shall indicate that the 5/8" though 1" meters will accurately measure flows for any flow between 0.03 gpm and 55 gpm, and operate satisfactorily at a flow of 20 gpm, continuous. 1" meters shall accurately measure flow between ¼ gpm and 65 gpm, with a rated maximum continuous flow of 50 gpm.
 - (f) Pressure loss through the meter shall be not more than 2 psi at 25 gpm.
 - (g) The specified maximum operating pressure shall be not less than 150 psi.
 - (h) The register must be an electronic device encapsulated in glass with 9 programmable digits utilizing a liquid crystal display (LCD). It will have indicators for flow direction, empty pipe, battery life and unit of measurement. The register must be hermitically sealed with a heat tempered glass cover and be tamper resistant. The register shall not be removable from the measuring element. The register shall utilize a magnetic coupling technology to connect to a touch read, radio read or fixed base meter reading system in either an inside or pit set installation.

- (i) The measuring element of the unit shall be comprised of a polyphenylene sulfide alloy flowtube. The measuring element shall be made of a noncorrosive, lead-free glass reinforced, composite alloy material with externally threaded spud ends. The magnetic flow sensor, which will use electrodes to measure the velocity of the water shall be battery powered. The measuring element will have no moving parts and will be specific for each size.
- (j) The meter manufacturer shall have produced a model substantially similar to the model proposed for this project, for a period of not less than 10 years. Not less than 10,000 such meters manufactured by the manufacturer shall be presently in service within the United States.
- (k) The meter manufacturer shall have calibration and repair services readily available within the United States.
- (I) The meter manufacturer shall provide a written warranty directly to Owner, guaranteeing specified accuracy for not less than 10 years, and guaranteeing integrity of the main case for not less than 20 years.
- (m) All meters supplied under this contract shall be of the same manufacture and identical, except for size.
- (3) Commercial water meters between 1-1/2" and 6" sizes shall be compound meters conforming with AWWA C701 and C702 Class II. Meters shall also have the following characteristics:
 - (a) The meters shall not require the use of a valve to achieve the desired standards contained in the aforementioned AWWA specifications.
 - (b) The external housing of the main case shall be ductile iron with an approved NSF epoxy coating. The main case shall be stamped with the name of the manufacturer, the nominal size, the direction of flow, and a unique serial number. The case shall be assembled with a leak-proof, high-pressure, nitrile "O" ring gasket.
 - (c) Meter shall be an integrated unit that incorporates the electronic register and measuring device encased in a thermoplastic external case.
 - (d) Meters shall have a 20-year life cycle, along with a 10-year battery life guarantee.
 - (e) The meter shall be equipped with a "V-shaped" stainless steel screen to serve as a strainer. The unit shall have a removable strainer cover for ease of access.
 - (f) Manufacturer's specifications shall indicate that the 1-1/2" though 6" meters will accurately measure low flows ranging from 0.25 gpm to 3 gpm, respectively. gpm, and All sizes of meters shall operate satisfactorily at a continuous flow of not less than 160 gpm.
 - (g) Pressure loss through the 1-1/2" meter shall be not more than 6.9 psi at 160 gpm and for the 6" meter shall not be more than 5.5 psi at 1,600 gpm.
 - (h) The specified maximum operating pressure shall be not less than 200 psi.
 - (i) Coupling to the detachable register shall incorporate a high-strength ceramic magnetic, with no penetrations through the main case permitted.

- (j) The measuring element of the unit shall utilize a fully magnetic pickup system that consists of embedded rotor magnets with register probes that measure the flow based on the movement of the impeller. The magnetic register shall contain no mechanical gearing and shall have a minimum guaranteed battery life of 10-years.
- (k) The meter manufacturer shall have produced a model substantially similar to the model proposed for this project, for a period of not less than 10 years. Not less than 10,000 such meters manufactured by the manufacturer shall be presently in service within the United States.
- (I) The meter manufacturer shall have calibration and repair services readily available within the United States.
- (m) The manufacturer shall provide a written warranty directly to Owner, guaranteeing the register (including battery) for not less than 10 years.
- (n) All meters supplied under this contract shall be of the same manufacture and identical, except for size.
- (4) Remote Reading Register (Meter sizes 1-1/2" to 6") Each commercial water meter of the size specified to be provided under this contract shall be furnished with a remote reading register fully compatible with the supplied water meter, and conforming with the following requirements:
 - (a) The remote reading register shall be quickly and easily attached to or detached from the supplied water meter without removing the meter from the line nor meter box, using simple hand tools.
 - (b) The register shall be constructed entirely of engineered plastic or other corrosion resistant materials, and suitable for use in underground and possibly submerged locations.
 - (c) The register shall continuously read and process the signal from the internal rotating magnet within the water meter case, with no direct connection to any internal part within the meter.
 - (d) The fully sealed register must be an electronic device encapsulated in glass with 8 programmable digits utilizing a liquid crystal display (LCD). It will have indicators for flow direction (forward and reverse), AMR, flow totalization, rate of flow, empty pipe, battery life and unit of measurement.
 - (e) The register must be hermitically sealed with a heat tempered glass cover and be tamper resistant. The register shall be removable from the magnetic flow measuring element. The register shall utilize a magnetic coupling technology to connect to a radio read or fixed based meter reading system in either an inside or pit set installation.
 - (f) The register shall be preprogrammed and initialized upon receipt but shall also be capable of two-way communication for field programming of a user selected ID number or for resetting specific alarm codes. The register shall be capable of monitoring water consumption for the possibility of leaks
 - (g) In addition to the local indications specified in the previous paragraph, the register shall communicate with compatible receiver units by RF radio operating in an approved, unlicensed UHF band or ISM band, which will not require the Owner to purchase and maintain their own RF frequency licensing

- compliance. The register will use an appropriate technology demonstrating reliability and resistance to unauthorized reception.
- (h) The remote reading register shall include either a built-in radio antenna or a separate radio module that is capable of connecting to the electronic register.
- (i) To prevent pollution of the environment by unnecessary transmitted RF energy and to maximize battery life, the transmitter shall transmit only when properly interrogated by a compatible receiving unit.
- (j) The character and power of the radio unit shall be such that communication between the register and the compatible mobile receiving unit (specified herein under Item No. 3) is possible at a distance of not less than ¼ mile, assuming level ground, and that the register is located within a composite meter box with the top flush with the ground.
- (k) As a minimum, each transmission shall include:
 - i. a unique meter identification number
 - ii. total gallons of metered usage
 - iii. battery status
 - iv. leak detection flag
 - v. backflow detection flag.
- (I) Rated battery life shall be not less than 10 years.
- (m) When the remaining battery life reaches 20%, a visual indicator shall so indicate on the register dial, and a flag shall be set on each meter reading transmission. When the remaining battery life reaches 5%, no further transmissions will be sent, but the meter shall continue to operate with visual display until the battery is depleted.
- (n) The manufacturer of the remote reading register shall specifically certify that the register provided is fully compatible in all respects with the water meter provided.
- (o) The register manufacturer shall have produced a model substantially similar to the model proposed for this project, for a period of not less than 5 years. Not less than 10,000 similar registers manufactured by the manufacturer shall be presently in service within the United States.
- (p) The manufacturer shall provide a written warranty directly to Owner, guaranteeing the integrity of the register (including battery) for not less than 10 years following initial deployment.
- (q) All registers supplied under this contract shall be identical in every respect, including the spare units as ordered by the Owner.
- (5) Miscellaneous minor materials such as brass piping adapters, gaskets, and the like shall be supplied by Contractor at no additional cost to Owner.
- (6) If and only if an existing curb stop valve is found to be defective and not usable, Owner will furnish a replacement to Contractor at no cost. Contractor will install the new curb stop valve, at no additional compensation.

(7) If and only if the existing meter box is found to be broken and unusable, Owner will furnish a replacement to Contractor at no cost. This does not apply if the box is broken by Contractor, in which case Contractor will provide a replacement box of the same type. Contractor will install the new meter box at no additional compensation.

(C) CONSTRUCTION REQUIREMENTS

- (1) It is the intent of this contract that each and every existing commercial water meter owned and operated by the Owner up to and including 6" nominal size will be replaced with a new meter, complete with Remote Reading Register.
- (2) Owner will furnish the Contractor with a listing of the location of each meter, complete with customer address and/or account number (See Appendix A). A more current listing will be provided to the Contractor prior to the initiation of the work. If Contractor fails to find a meter after reasonable effort, Owner's staff will assist in finding that meter. A boundary map of the City is provided at the rear of this specification.
- (3) Contractor shall replace existing meters using skilled personnel experienced in this work, equipped with all tools and minor materials reasonably anticipated as necessary.
- (4) The existing materials shall be re-used to the extent possible, including the meter curb stop valve and meter connections. However, all gaskets shall be replaced with new gaskets.
- (5) As each existing meter is removed from service, Contractor shall complete a written Installation Log showing:
 - (a) The service address and/or account number, as provided by the Owner;
 - (b) The serial number of the existing meter;
 - (c) The date and time of discontinued service;
 - (d) The current reading of the meter, in gallons;
 - (e) GPS coordinates of the meter; and,
 - (f) Notation of any defective parts observed, and the action taken to mitigate these.
- (6) Before the new meter is set, set the current total gallons reading on the new meter to match the reading of the existing meter being replaced. The reading on the new meter shall be entered by one person, and then immediately CHECKED against the log and against the existing meter by a second person.
- (7) Record the serial number of the new meter (may be recorded on the same Installation Log as previously discussed.)
- (8) Each installation shall be neat and completely leak-free.
- (9) The contractor shall be required to drill holes in the lid of the existing meter boxes for installation of the radio-read antenna. Some of these meter lids may be of the ductile iron traffic-rated type.
- (10) If the clearance between the top of the meter and the bottom of the meter box lid is insufficient, then Contractor may be authorized and directed to adjust the meter setting as follows:
 - (a) Excavate to remove the meter box and back along the water service pipes in each direction sufficient that the meter can be lowered by the amount

- necessary to provide clearance. Avoid crushing or crimping of the water service pipes.
- (b) Backfill with native material removed during excavation. Tamp to compact.
- (c) In special circumstances, Contractor may be authorized to use brass pipe fittings to provide the required downward offset on one or both sides of the meter.
- (d) Reinstall the meter box, flush with the adjacent ground (or above the ground to match the original meter box elevation).
- (11) The existing meter and any other material replaced under this contract shall **become**the property of the Contractor. All such materials shall be removed from the project area and properly disposed of. Contractor should apply the salvage value of the removed materials against his bid price for this item.

(D) <u>METHOD OF MEASUREMENT</u>

- (1) Water Meters with remote reading registers, radios and antenna will measured by the number of complete units of each size furnished and installed.
- (2) Payment for drilling holes in existing meter lids shall be measured per each.
- (3) Adjusting water meter boxes to grade shall be measured per each.

(1) Payment will be made under PAY ITEM NO.

(4) If authorized by the Engineer, replacement of existing meter box lids shall be measured per each.

(E) PAYMENT

Pass	Christian	1 - 6	Item No.
1-E	3" Water Meter with Rem	note Reading Register, Radio and Antenna	
	(\$	_) per EACH	
1-D	2" Water Meter with Rem	note Reading Register, Radio and Antenna	
	(\$	_) per EACH	
1-C	1-1/2" Water Meter with	Remote Reading Register, Radio and Antenna	ì
	(\$	_) per EACH	
1-B	1" Electromagnetic Wate Antenna	r Meter with Remote Reading Register, Radio	and
	(\$	_) per EACH	
1-A	5/8" x 3/4" Electromagne and Antenna	tic Water Meter with Remote Reading Registe	r, Radio

	(\$) per EACH
1-F	4" Water Meter with Ren	mote Reading Register, Radio and Antenna
	(\$	_) per EACH
1-G	6" Water Meter with Re	mote Reading Register, Radio and Antenna
	(\$) per EACH
1-H	Drilling Hole in Meter Bo	ox Lid
	(\$	_) per EACH
1-I	Adjusting Water Meter B	oxes to Grade
	(\$	_) per EACH
1-J	Replace Plastic Meter B	ox Lid
	(\$) per EACH

ITEM NO. 2

AUTOMATED METER READING

DRIVE-BY READING UNIT

(A) <u>SCOPE OF WORK</u>

- (1) This item shall consist of the furnishing and set-up of at least two (2) automobile-based automated meter reading (AMR) units, to receive transmissions from the remotereading water meters furnished and installed under this contract.
- (2) This shall include all costs for equipment, deployment, installation, configuration and testing of the system.
- (3) For reliability and meter reading integrity, the provider of this unit shall be the sole manufacturer of the different components of the overall system (i.e., water meters, endpoints, meter reading equipment and software) as required to provide a fully functional turnkey system to the Owner.
- (4) The price bid for the items listed in the Proposal shall provide all materials, equipment, training, and support services necessary for a complete and operating AMR System. If a required item is not specifically provided in Proposal or in these Specifications, the item shall be considered incidental to the Project, and the cost shall be included in other items provided in the Proposal.

(B) MATERIALS

- (1) The assembly furnished under this item shall be completely compatible with the remote-reading water meters specified herein, and shall be furnished by the same supplier as the meters and registers.
- (2) Each meter-reading assembly shall consist of:
 - (a) An industrial-quality laptop computer, running suitable software.
 - (b) An interface unit that communicates with the remote reading meter registers and translate the received readings into a form usable by the computer.
 - (c) An RF antenna, sized and situated to meet the specified requirement for routine communications with meters located up to ¼ mile away.
 - (d) A gps receiver and antenna, if necessary, integrated within the interface unit or within the laptop computer, to track the unit's current location and display it on a detailed local map loaded on the computer.
 - (e) Means to conveniently mount the units within easy reach of the driver in an ordinary full-size pick-up truck, and power them from an ordinary 12-volt power-point.
- (3) The laptop computer shall run software provided by the Contractor, under the Windows 10 Operating System of current revision. The computer shall meet the following specs, at a minimum:

- (a) Processor shall be Intel Core I7, or better.
- (b) Memory shall be not less than 16 GB.
- (c) Hard drive shall be Solid State, 256 GB or greater capacity.
- (d) Internal CD/DVD reader-writer drive.
- (e) Integrated Wifi 802.11 a/b/g/n.
- (f) Computers shall have at least one Ethernet connector, one USB3 slot and two USB2 slots.
- (g) Screen size shall be not less than 14" nominal size.
- (h) The case shall be metal, sturdy and resistant to bending and damage during use in the field, per MIL-STD-810G.
- (i) Battery shall be long-life Li-lon, capable of operating the computer continuously for not less than 8 hours.
- (j) Each computer shall be furnished with two power supplies, one for 120v A.C., and one for 12v D.C.
- (k) Software shall be user friendly with the following capabilities:
 - Can be loaded in advance from Owner's existing billing software with the pre-programmed meter reading route with account numbers to be read during this trip.
 - ii. Display the desired meter reading route on a map on the screen, with real-time indication of the unit's current position.
 - iii. Can automatically and continuously interrogate the remote-reading meter registers along the selected route, download the data from each meter, and apply the readings and flags to the proper account.
 - iv. Provide real-time alerts regarding missing or incomplete data received.
- (4) The Interface Unit provides the 2-way RF link between the laptop computer and the individual remote-reading meter registers along the meter-reading route. It communicates on an FCC-approved unlicensed UHF frequency using Spread Spectrum Technology. It also is used to field program remote read registers with the meter serial number and the initial total "gallons read", when new registers are placed into service.
- (5) The antenna will typically be integral with the Interface Unit, but may be external, if necessary, to achieve the required range of ¼ mile.
- (6) A mount shall be provided to hold the laptop computer at a convenient location for driver's use in the vehicle.
- (7) All necessary power supplies, power cords and interconnection cables for the equipment shall be provided.

(C) CONSTRUCTION REQUIREMENTS

- (1) This equipment may be used by Contractor while installing the remote-reading water meters, to test the operation and to set the initial meter reading to match the reading of the existing water meter as it is replaced.
- (2) Upon completion of the work, the equipment shall be transferred in new condition to the Owner.
- (3) Contractor shall assist Owner in installing the equipment in Owner's vehicle(s).

(D) <u>METHOD OF MEASUREMENT</u>

(1) Drive-By Remote Reading Unit shall be measured by the number of complete assemblies furnished as described.

(E) PAYMENT

(1)	Payr	nent will be made under PAY ITEM	I NO.	
	2-A	Drive-By Remote Reading Unit		
		(\$_)	per EACH

ITEM NO. 3

AUTOMATED METER READING

SYSTEM SETUP AND TRAINING

(A) SCOPE OF WORK

- (1) This item shall consist of the furnishing and set-up of software on the Owner's existing billing computer to allow operation of the new Automatic Meter Reading (AMR) system.
- (2) Also included is the training of Owner's personnel in the installation, use, maintenance, and configuration of the equipment and software provided under this contract (includes costs for the software maintenance agreement for a minimum period of three years following acceptance by the Owner).

(B) MATERIALS

(1) Software shall be provided and installed on Owner's existing billing computer to facilitate the upload of account information to the Drive-By Remote Reading Units, the download of readings from the Drive-By Remote Reading Unit into the billing software, and to generate useful reports for analysis. It is Contractor's responsibility to provide software which is fully compatible with Owner's existing billing software. Owner's computer runs under the Windows 10 Operating System, and uses Incode 10 Utility Billing Software provided by Tyler Technologies.

(C) CONSTRUCTION REQUIREMENTS

- (1) Contractor shall install needed interface software on Owner's existing utility billing computer, making it fully compatible with the new Drive-By Remote Reading water meters and Drive-By Reading Units furnished under this contract, including any necessary configuration of the Owner's existing billing software. This work shall be performed by an experienced IT professional, fully familiar with the capabilities of the new software.
- (2) At a minimum, the software should:
 - (a) export account information from the billing software to the Drive-By Reading Units via Wifi, Ethernet, or USB thumb drive to facilitate the reading of water meters in a logical sequence, as selected by the Owner.
 - (b) import meter reading data from the Drive-By Reading Units via Wifi, Ethernet, or USB thumb drive to the billing computer, in a form usable by the software in generating reports useful in analyzing the data.
 - (c) transfer the meter readings to the Owner's existing billing software, ready to run monthly utility bills.
 - (d) have licenses provided and maintained by the AMR provider for the duration of the contract.

- (3) Contractor shall also provide formal on-site person-to-person training to instruct Owner's personnel in all aspects of the installation, usage, and maintenance of the water meters, remote-reading meter registers, Drive-By Remote Reading Units, and the software installed on the Owner's existing billing computer. This information shall also be transferred in hard-copy written form (two copies), and in electronic form (.pdf files preferred). Not less than three (3), 8-hour man-days should be allocated for this on-site training.
- (4) The manufacturer/supplier of the equipment and software shall also have available unlimited on-line and telephone customer support to Owner's staff, at no cost for at least the first year after the system is operational.
- (5) Included with the bid package submitted for this project, the software vendor shall provide a written copy of the annual software maintenance agreement, which shall describe in detail the technical support, licensing fees, software maintenance and updates provided. The bid shall include a prepaid subscription for this for not less than two calendar years, starting on the date when the system first becomes fully operational. The amount bid shall be the same amount normally charged to customers of the same class as the Owner, as verified by published price charts.

(D) <u>METHOD OF MEASUREMENT</u>

- (1) System Set-up and Training shall be measured as one Lump Sum, payable on the last Pay Estimate, following Owner's final acceptance of the project.
- (2) Annual Software Maintenance shall include all licensing fees and software maintenance and updates needed for the systems and software provided under this contract for a period of not less than three years following acceptance of the project by the Owner. This item is measured on a per year basis and shall be payable on the last Pay Estimate.

3 - 2

(E) PAYMENT

3-A	System Set-up and Train	ning
	(\$	_) LUMP SUM
3-B	Annual Software Mainter	nance Program
	(\$	_) PER YEAR

(1) Payment will be made under PAY ITEM NO.

ITEM NO. 4

RESTORATION OF DISTURBED FACILITIES

(A) SCOPE OF WORK

- (1) This work shall consist of the restoration of various types of pavements, driveways, sidewalks, and incidental work relating to the replacement of the commercial water meters where these facilities are encountered within the allowable construction limits.
- (2) Also included is the establishment of a live and growing stand of grass and solid sod and placement of erosion control material or rip-rap suitable to stabilize and prevent erosion of all ground areas disturbed in constructing the project, which are within the allowable construction limits.
- (3) The Contractor shall furnish all labor, materials, tools and equipment necessary to perform the required work and to complete the work as designated in the accompanying plans and as specified herein.
- (4) It is the intent of this contract that existing improvements outside of the public right-of-way and outside of designated easement and construction limits shall be strictly protected from damage. Any damage or restoration required outside of these limits shall be performed at the Contractor's expense. Improvements located within the public right-of-way, designated easement, or construction limits may be removed if needed to facilitate construction, subject to the requirements specified herein.
- (5) If required, Contractor shall employ and pay for the services of an independent testing laboratory, subject to the approval of the Engineer, to perform all inspections, tests, or approvals as required to demonstrate compliance with the Contract Documents. The Engineer or his representative must witness all field testing for results to be considered valid and acceptable.

(B) MATERIALS

- (1) Asphalt Base Course shall conform to Section 401.02, MDOT Standard Specifications, 2004 Edition. The job mix formula shall meet gradation requirements of Section 401.02.1.2.3 (19.0 mm mix), MDOT Standard Specifications, 2004 Edition.
- (2) Hot Bituminous Pavement shall conform to Section 401.02, MDOT Standard Specifications, 2004 Edition. The job mix formula shall meet gradation requirements of Section 401.02.1.2.3 (9.5 mm mix), MDOT Standard Specifications, 2004 Edition.
- (3) Tack Coat shall be Emulsified asphalt grade EA-4 or cutback asphalt grade RC-30, conforming to Section 702, MDOT Standard Specifications.
- (4) Crushed limestone for use as road base or driveway restoration shall consist of a blend of various sizes of 100% crushed limestone or granite, containing not more than 20% thin or elongated pieces. Percentage of wear, Los Angeles Test, shall not be more than 50%. When subjected to five (5) cycles of the soundness test, by use of magnesium sulfate, the weighted percentage of loss shall not be more than 15. The blend shall be well-graded, to permit an easy compaction into a stable mass, and shall conform in every case to the following master range:

Square-Mesh Sieve	% Passing (by Dry Wt.)		
1 1/2"	100		
1"	90 - 100		
3/4"	70 - 95		
3/8"	50 - 80		
#4	35 - 65		
#10	25 - 50		
#40	10 - 26		
#200	4 - 12		

The soft, red-colored "Red Limestone" commonly imported from Mexico is not acceptable due to its poor performance in wet conditions.

- (5) Concrete shall conform to the requirements for Class B concrete, MDOT Standard Specifications. Minimum compressive strength 3,500 p.s.i.
- (6) Steel reinforcement shall be Billet Steel Bars (Intermediate or Hard Grade), AASHTO Designation 31, or Rail Steel Bars, AASHTO Designation 42.
- (7) Steel wire fabric shall conform to the requirements of the Standard Specifications for Welded Steel Wire Fabric for Concrete Reinforcement, AASHTO Designation: M-55.
- (8) Curing Materials shall conform to the requirements set out in the Standard Specifications for Liquid Membrane Forming Compounds for Curing Concrete, AASHTO Designation: M-148, Type 2 (White Pigmented).
- (9) Expansion joint material shall conform to Standard Specifications for Preformed Expansion Joint Fillers for Concrete (non-extruding and resilient types), AASHTO Designation M-213.
- (10) Dowel bars shall be plain round bars of Grade 60 billet steel, AASHTO Designation M-31. Before installation, each dowel bar shall be painted with rust inhibitive primer.
- (11) Sleeves for dowel bars shall be metal or plastic at least two inches (2") in length. A suitable stop shall be provided in the sleeve to permit movement of the dowel within the sleeve of at least 3/4 ".
- (12) Sod Commercially grown Centipede or St. Augustine sod of a type similar in appearance to the existing grass being replaced.

(C) CONSTRUCTION REQUIREMENTS

- (1) General
 - (a) All facilities disturbed as a result of this work shall be restored by the Contractor in a prompt manner during the course of construction. Unless unusual circumstances require it, no excavation will be left open over-night or during any extended period without work.
 - (b) Facilities disturbed outside the allowable restoration limits shall be restored by the Contractor, but at no additional compensation.
- (2) Restoration Asphalt Pavement
 - (a) Whenever the existing meter box is located in asphalt pavement, if the asphalt pavement must be disturbed in order to replace the meter, the existing asphalt shall be saw cut to form a smooth uniform edge.

- (b) In areas where the asphalt pavement consists of an 8-inch crushed limestone base and 2-inch asphalt surface course, the backfill within the area to be paved shall be brought to the subgrade elevation, and then graded to a uniform surface. Installation of crushed limestone base course shall then follow immediately. Crushed limestone mixture shall be placed upon the prepared sub-base and shall then be compacted and graded to form a usable temporary road surface.
- (c) Crushed Limestone Base, where used, shall be maintained by grading, watering, adding additional crushed limestone mixture, and additional compaction as necessary to maintain local traffic until the asphalt surface course is installed. If necessary, to avoid stratification of the base course, the additional crushed limestone mixture shall be blended into the in-place material by scarifying or other approved means.
- (d) Just prior to installation of the bituminous surface course, grade the limestone base to a uniform crown section and at a grade substantially conforming with the original street surface and flush with adjoining remaining pavements, and then compact base to 95% Modified Proctor Density
- (e) Tack coat is required under all asphalt restoration. Apply heavy tack at joints with adjacent existing asphalt and at transitions where asphalt overlay is feathered.
- (f) Installation of hot bituminous base course and asphalt surface courses shall conform to Sections 301 and 403 MDOT Standard Specifications. The finished pavement surface shall meet the smoothness tolerances provided in Section 403.03.2 of the MDOT Standard Specifications, unless a variance is otherwise approved by Engineer. Areas that fail to meet this standard shall receive an additional overlay of the existing asphalt, at no additional cost to the Engineer or Owner, to correct this deficiency. Form transitions to adjacent existing surfaces in a neat and professional manner. The finished asphalt surface shall meet the smoothness tolerances provided in Section 403.03.2 of the MDOT Standard Specifications, unless a variance is otherwise approved by Engineer. Areas, as determined by the Engineer, that fail to meet this standard shall receive an additional overlay of the existing asphalt, at no additional cost to the Engineer or Owner, to correct this deficiency.
- (g) Any subsidence of the asphalt surface which exceeds one half of one inch and which occurs within the one-year warranty period must be corrected by the installation of additional asphalt at no additional compensation to Contractor. Method of correction must be approved by the Engineer and Owner prior to commencing work.
- (3) Restoration Concrete Roadway, Curb and Gutter, Driveways and Sidewalks
 - (a) Existing concrete is to be carefully removed by Contractor, avoiding damage to adjacent facilities which are to remain. All debris must be removed from the project area immediately, at Contractor's sole expense.
 - (b) Where existing construction joints are not located to permit economical removal and replacement of concrete to the existing joint, the Contractor shall make a sawn joint. The purpose of this is to form a neat and straight joint.
 - (c) Existing culvert pipe and drainage structures shall be carefully preserved in their positions. If necessary and prudent, select sandy backfill shall be used to stabilize these in position to avoid displacement. Any culvert pipe joint exposed by

- excavation shall be wrapped with an approved filter fabric, to prevent migration of soil into the pipe.
- (d) As soon as the meter has been replaced and the meter box has been appropriately adjusted, native backfill material shall be brought up to grade, shaped and compacted to 95% Modified Proctor Density, all concrete items of the types designated herein can be replaced.
- (e) The type of curb or combination curb and gutter to be restored shall be of the same type to match the existing.
- (f) The concrete used in construction shall be proportioned, mixed and placed in accordance with the provisions and requirements in the MDOT Standard Specifications, 1990 Edition, Section 804.05. Minimum 28-day compressive strength shall be 3,500 psi. Any concrete that has not been placed in forms within 1.0 hours from the time of being batched will be rejected.
- (g) Forms shall be of wood or metal, straight, free from warp, of sufficient strength to resist the pressure of the concrete without springing, and shall be cleaned thoroughly and oiled before concrete is placed against them. Bracing and staking of forms shall be such that the forms remain in both horizontal and vertical alignment until their removal.
- (h) Concrete items of the types designated shall be configured to match adjacent existing facilities.
- (i) Reinforcement shall be placed in exact positions shown on the plans and firmly held during the placing and setting of concrete. Reinforcement for sidewalks and driveways shall consist of 6 x 6 #10 welded wire fabric. Replacement concrete driveways and sidewalks shall have #4 bars, 12" long doweled into the existing concrete at 12" O.C. and shall have a minimum embedment length of 6" into the existing concrete. Metal devices in contact with exterior surface of the structure shall be galvanized. The use of gravel, pieces of broken stone or brick, metal pipe and wooden blocks as spacers will not be permitted.
- (j) The concrete for driveways and sidewalks shall be deposited in a single layer on a moist grade to such depth that after finishing it shall be to the full thickness required, but not less than four (4) inches. The edges and sides shall be to the full thickness required, but not less than five (5) inches, or as detailed in the Drawings. The edges and sides shall be thoroughly spaded, and the surface tamped sufficiently to consolidate the concrete and bring mortar, for finishing, to the surface.

(k) Finishing:

- 1. Street Surface "Drag Finish", a uniform surface of gritty texture produced by dragging a seamless strip of damp burlap or cotton fabric longitudinal along the surface.
- 2. Curb and Gutter smooth and even with wood float, irregularities of surface of more than 1/8 inch in 10 feet shall not be permitted.
- 3. Sidewalks and Driveways Class 6 floated surface finish in accordance with Subsection 804.30, MDOT Standard Specifications.
- 4. After the final finish but before the concrete has taken its initial set, all edges shall be worked with an approved tool.

- (I) Edges shall be carefully finished and rounded with an edging tool having a radius of one-half (1/2) inch.
- (m) The surface of sidewalks and driveways shall be divided into blocks with a grooving tool. Spacing of blocks shall conform to the original concrete. Edge grooves with edging tool as necessary to provide uniform edges.
- (n) Remove edge marks with a wetted brush so as to give the surface a uniform granular texture which will not be slick when wet.
- (o) For curb and gutters, provide contraction joints spaced every 10 feet maximum unless otherwise indicated. Cut contraction joints 3/4-inch deep with a jointing tool after the surface has been finished. Provide expansion joints 1/2-inch thick and spaced every 100 feet maximum unless otherwise indicated. Expansion joints are required at points of curvature and at each side of each drainage inlet box.
- (p) Construction joints shall be placed as detailed in Drawings. Expansion joints consisting of premolded expansion joint material, one-half (1/2) inch thick, full depth, shall align with existing expansion joints (approximately 40 feet O.C.) and along sawn joints. Contraction joints shall be spaced at not more than 15 feet.
- (q) Cure with white pigmented liquid membrane, conforming to ASTM C-309 spray uniformly at a rate of one gallon to not more than 150 square feet by mechanical sprayer immediately after finishing operation is completed.
- (r) Pavement markings and striping shall be restored immediately upon completion of restoration.
- (4) Restoration Crushed Limestone or Gravel Driveways
 - (a) Place crushed limestone or washed gravel within areas where original limestone or gravel drive surfaces were disturbed (match original material), six (6) inches loose thickness, spread, shape to drain.
- (5) Vegetative Cover
 - (a) The Engineer will field designate those areas to receive vegetative cover (grassing). Generally, existing disturbed areas of turf will be designated to receive vegetative cover. However, existing vegetative cover disturbed outside allowable restoration limits as specified in these specifications and in the Drawings shall be restored, but at Contractor's expense.
 - (b) All earth surfaces which are to receive vegetative cover shall receive ground preparation to a depth of not less than four (4) inches. Thoroughly pulverize the area before the application of vegetative control items. If the soil is not moist it shall be watered until it is in a workable condition. All areas shall be cleared of rough grass, weeds, and debris, and the ground surface brought to an even, uniform grade as approved.
 - (c) Before the sowing of any seed distribute commercial 13-13-13 fertilizer at the rate of two hundred pounds per acre and disc into the top four inches of prepared soil.
 - (d) Seed mixture and application rate shall be as follows, depending upon the time of year in which the seeding application is to take place:

March 1 - July 15 Common Hulled Bermuda (30 lbs/acre)
Carpet (30 lbs/acre)
Centipede (4 lbs/acre)

July 15 - September 1 Common Hulled Bermuda (65 lbs/acre)

September 1 - March 1 Common Unhulled Bermuda (50 lbs/acre)

Annual Rye (100 lbs/acre)

Sow seed at uniform rate. Cover lightly by raking, rolling or other approved methods.

- (e) Within 24 hours following the seeding, baled straw mulch shall be uniformly distributed over the entire seeded area at the rate of two tons of vegetative mulch material per acre and mulch will be crimped.
- (f) The contractor may elect to install the vegetative cover by Hydro-mulching techniques in accordance with the following specifications.
- Hydro-mulching equipment must have a built in agitation system and operating system capable to agitate, suspend, homogeneously mix and apply a slurry of organic mulch, fertilizer, organic tackifier, seed, etc. to stabilize graded and disturbed ditches.
- All earth surfaces which are to receive hydro-mulching shall be cleared of rough grass, weeds, and debris and the ground surface brought to an even, uniform grade as approved. If the soil is not moist it shall be watered until it is in a workable condition.
- Fertilizer shall be commercial 13-13-13 fertilizer or equivalent and added to mixture at rate of two hundred pounds per acre.
- Seed mixture and application rate shall be as follows, depending upon the time of year in which the seeding application is to take place:

March 1 - July 15 Common Hulled Bermuda (30 lbs/acre)

Carpet (30 lbs/acre) Centipede (4 lbs/acre)

July 15 - September 1 Common Hulled Bermuda (65 lbs/acre)

September 1 - March 1 Common Unhulled Bermuda (50 lbs/acre)

Annual Rye (100 lbs/acre)

- (g) The Contractor shall maintain the planted areas until the work has been completed, and a satisfactory stand and growth of in season plantings have sufficiently covered the area, and have been accepted. Maintenance shall consist of preserving, protecting, watering, weeding, mowing, repairing, replacing, and such other work as may be necessary to keep the planted areas in a satisfactory condition.
- (h) If deemed necessary by the Engineer, Contractor may be required to mow areas of overgrown grass prior to final acceptance, or may be required to reseed areas and establish a satisfactory stand of in season plantings prior to final acceptance.
- (6) Solid Sod

- (a) The Engineer will field designate those areas to receive solid sod. Generally, only existing areas of highly developed lawn turf will be designated to receive sod.
- (b) All earth surfaces which are to receive solid sod shall receive ground preparation to a depth of not less than four (4) inches. Thoroughly pulverize the area before the application of vegetative control items. If the soil is not moist it shall be watered until it is in a workable condition. All areas shall be cleared of rough grass, weeds, and debris, and the ground surface brought to an even, uniform grade as approved.
- (c) Before the placing of sod distribute commercial 13-13-13 fertilizer at the rate of two hundred pounds per acre and disc into the top four inches of prepared soil.
- (d) The areas will then be brought to proper grade, free of sticks, stones, roots, or other foreign matter. The surface will conform to finish grade, less the thickness of sod, free of water retaining depressions, and the soil will be friable and of uniformly firm texture.
- (e) Place a continuous mat of live sod upon all areas disturbed by construction. Contractor has option of cutting existing grass now on the site and preserving it for reinstallation, or he may destroy the existing grass and provide new sod which satisfactorily matches the original turf.
- (f) Place the sod edge in a neat, clean manner to the edge of all paving and shrub areas. Top dressing with approved, clean and weed free sand may be required at no additional cost to the Owner.
- (g) Areas on which sod is to be placed will contain sufficient moisture to prevent drying out. Contractor will keep sod moist to the full depth of the rooting zone for a minimum of two weeks after installation and as further required to maintain a living and growing stand of sod. Contractor shall be responsible for providing water required for irrigation.
- (h) The Contractor shall maintain the sodded areas until the work has been completed and accepted. Maintenance shall consist of preserving, protecting, watering, weeding, mowing, repairing, replacing, and such other work as may be necessary to keep the planted areas in a satisfactory condition.
- (i) Lawn areas outside the designated restoration limits damaged by Contractor's operations will be repaired at once by proper sod bed preparation, fertilizing and re-sodding, in accordance with these specifications.

(7) Miscellaneous

- (a) Contractor shall provide grading, shaping, compaction and dressing as required for the project.
- (b) Contractor shall construct drainage swales and shape to drain.

(D) METHOD OF MEASUREMENT

(1) Crushed limestone base, if required, shall be measured as the number of square feet of minimum specified thickness, of completed work, field measure.

- Hot Bituminous Base Course, if required, shall be measured as the number of square feet of the minimum specified thickness, of completed work, that has been verified by testing to meet MDOT standards, field measure.
- Hot Bituminous Surface Course, if required, shall be measured as the number of square feet of the minimum specified thickness, of completed work, that has been verified by testing to meet MDOT standards, field measure.
- (4) No measure or payment will be made for materials used for tack coats.
- Concrete restoration of all types, including driveways, aprons, parking islands, etc. shall (5) be measured as the number of square feet of completed work, field measure.
- No measure or payment will be made for saw cut joints. (6)
- Granular (limestone or gravel) driveway restoration within the area of the water meter replacement will be measured for payment by the square feet of the minimum (6") specified thickness, field measure, complete in place.
- Vegetative cover shall be measured as the number of square feet of work authorized and completed, field measure. No payment for vegetative cover will be made until a satisfactory stand of grass exists, to be determined by the Engineer and Owner.
- (9)Solid sod shall be measured as the number of square feet of work of work authorized and completed, field measure. No payment for vegetative cover will be made until a satisfactory stand of grass exists, to be determined by the Engineer and Owner.

(E) PAYMENT

(1) Payment will be made under PAY ITEM NO.

4-A	LIMESTONE BASE RESTORATION
	(\$) per square feet
4-B	2" HOT BITUMINOUS SURFACE COURSE (9.5 mm MIXTURE)
	(\$) per square feet
4-C	4" HOT BITUMINOUS BASE COURSE (19.0 mm MIXTURE)
	(\$) per square feet
4-D	CONCRETE SIDEWALK RESTORATION
	(\$) per square feet
4-E	CONCRETE RESTORATION (Includes concrete driveways, aprons, islands, etc.)
	(\$) per square feet
4-F	GRANULAR DRIVE RESTORATION (Limestone or Gravel)
	(\$) per square feet
4-G	VEGETATIVE COVER (SEEDING)
	(\$) per square feet
4-H	SOLID SOD
	(\$) per square feet



APPENDIX A COMMERCIAL WATER METER ACCOUNTS

ACCT#	ACCOUNT NAME	ADDRESS	SERIAL#	METER SIZE
05-01000001-05	PORTAGE LLC	1000 CLARKE AVE HOUSE PASS CHR ISTIAN MS 39571	11077423	1"
02-00102001-01	BKS INC KEITH'S SUPERSTORE #109	102 E BEACH Blvd # RESTAURANT PASS CHRISTIAN MS 39571	96607411	1"
02-00102002-03	BKS INC KEITH'S SUPERSTORE #109	102 E BEACH Blvd # SPRK PASS CHRISTIAN MS 39571	47862892	3/4"
02-0010 2003-01	BKS INC KEITH'S SUPERSTORE #109	102 E BEACH Blvd # STORE PASS CHR ISTIAN MS 39571	61241915	1"
02-00104001-01	MS DEPT OF MARINE RESOURCES	104 S MARKET St PASS CHRISTIAN MS 39571	11155772	1 1/2"
05-00107008-02	MISSISSIPPI MARINE SERVICES	107 PEARSON ST PASS CHRISTIAN MS 39571	54003609	1"
03-001 10003-03	BILLUPS BREAKFAST OXFORD LLC	110 W SCENIC Dr PASS CHRISTIAN MS 39571	8942921	1 1/2"
<u>07-01100001-01</u>	PASS MARIANNE HOME OWNERS ASSC	1100 W BEACH BIVD # HOUSE PASS CHRISTIAN MS 39571	34036332	3"
<u>03-0011100 2-03</u>	NICAUD RESTAURANT GROUP LLC	111 W SCENIC Dr PASS CHRISTIAN MS 39571	11079632	3/4"
03-00111003-08	A AND A MARINE HARDWARE	111 W SECOND St PASS CHR ISTIAN MS 39571	8833034	3/4"
02-00113001-05	HANCOCK BANK COMMUNITY CENTER	113 DAVIS AVE PASS CHR ISTIAN MS 39571	52032980	3/4"
02-00115001-03	HOTEL WHISKEY	115 DAVIS AVE PASS CHRISTIAN MS 39571	35000021	1 1/2"
02-00116007-00	SCHICK REAL ESTATE LLC	116 DAVIS Ave # APARTMENT PASS CHRISTIAN MS 39571	17000569	3/4"
02-00116001-02	SCHICK REAL ESTATE LLC	116 DAVIS AVE A PASS CHRISTIAN MS 39571	11149934	3/4"
02-0011600 2-04	ASIAN PARADISE	116 DAVIS UNIT D AVE PASS CHRISTIAN MS 39571	10124048	3/4"
03-00116003-00	HOTEL PASS CHRISTIAN	116 W SCENIC Dr # HOTEL PASS CHRISTIAN MS 39571	8881768	2"
01-00117004 -06	HAYDEN SQUAR E LLC	117 HAYDEN Ave # A PASS CHRISTIAN MS 39571	22002464	3/4"

ACCT#	ACCOUNT NAME	ADDRESS	SERIAL#	METER SIZE
01-00117009-01	K PAVOLINI CO	117 HAYDEN Ave # B PASS CHRISTIAN MS 39571	16130274	3/4"
01-00117010-01	STUDIO 4 SALON	117 HAYDEN Ave # C PASS CHRISTIAN MS 39571	17369165	3/4"
01-00117011-01	DYDHT INC dba DEREK DOYLE DESIGNS	117 HAYDEN Ave # D PASS CHRISTIAN MS 39571	22001746	3/4"
02-00118000-00	SAZERAC GROUP LLC	118 DAVIS Ave Pass Christian MS 39571	9008203	1"
02-00 120003-03	SHAGGY'S BAR & GRILL	120 S HIERN Ave # OUTSIDE PASS CHRISTIA N MS 39571	66811900	3/4"
02-00120002-01	SHAGGY'S BAR & GRILL	120 S HIERN Ave PASS CHRISTIAN MS 39571	65674003	3/4"
02-00120005-01	PASS CHRISTIAN YACHT CLUB	120 S MARKET St # POOL PASS CHRISTIAN MS 39571	3826304	1"
02-00120004-01	PASS CHRISTIAN YACHT CLUB	120 S MARKET St # YACHT CLUB PASS CHRISTIAN MS 39571	5369303	1 1/2"
03-00120001-01	BLUE ROSE & ANTIQUES	120 W SCENIC Dr PASS CHRISTIAN MS 39571	L024418	3/4"
02-00121005-03	GERALD W FAVRE	121 E SECOND St # APT PASS CHRISTIAN MS 39571	3826801	3/4"
02-00124001-06	CIGARS IN THE PASS	124 DAVIS AVE PASS CHR ISTIAN MS 39571	0511197	3/4"
02-00125001-05	SAZERAC GROUP LLC	125 DAVIS AVE PASS CHRISTIAN MS 39571	020214000	3/4"
03-00125005-02	LIVE OAK ANIMAL HOSPITAL	125 HENDERSON AVE PASS CHR ISTIAN MS 39571	10124124	3/4"
02-00130001-01	STEVE SAUCIER INSURANCE	130 DAVIS AVE PASS CHRISTIAN MS 39571	020217000	3/4"
51-00132001-02	AMY C GARTMAN	132 ASMARD ST PASS CHRISTIAN MS 39571	4238995	3/4"
02-00133001-04	SAZERAC GROUP LLC	133 DAVIS AVE PASS CHRISTIAN MS 39571	10123959	3/4"
02-00133002 -01	SAZERAC GROUP LLC	133 DAVIS AVE SPR INKLER PASS CHR ISTIA N MS 39571	18212157	3/4"

ACCT#	ACCOUNT NAME	ADDRESS	SERIAL#	METER SIZE
<u>51-0013600 1-02</u>	PASS CHRISTIAN RV PARK	136 ASMAR D ST PASS CHRISTIA N MS 39571	37000041	2"
<u>02-00139001-01</u>	BOURDIN BROS PLUMBERS	139 DAV IS AVE PASS CHRISTIAN MS 39571	020209000	3/4"
02-0014 1001-06	PASS CHRISTIAN OILS AND VINEGARS	141 DAVIS AVE PASS CHRISTIA N MS 39571	11077994	3/4"
01-01410001-03	CORNERSTONE BAPTIST CHURCH	1410 E SECOND St PASS CHRISTIAN MS 39571	010185500	3/4"
<u>11-0 1453003-01</u>	GULF PALM VILLAS CONDO OWNERS ASSOC	1453 E BEACH Blvd # SPRINKLER PASS CHRISTIAN MS 39571	5524770	2"
11-01453004-02	GULF PALM VILLAS CONDO OWNERS ASSOC	1453 E BEACH Blvd # UNITS HI PASS CHRISTIAN MS 39571	2300248	6"
11-01453002 -02	GULF PALM VILLAS CONDO OWNERS ASSOC	1453 E BEACH BIVI # UNITS LO PASS CHRISTIAN MS 39571	34000094	1"
<u>51-00146001-01</u>	SWEETBAY CONDO ASSOCIATION	146 SWEETBAY DR PASS CHRISTIAN MS 39571	2453580	2"
<u>51-00 150002-01</u>	PASS CHRISTIAN ISLES GOLF CLUB	150 FA IRWAY Drive # SPR PASS CHRISTIA N MS 39571	16099182	3/4"
<u>51-00 15000 1-01</u>	PASS CHRISTIAN ISLES GOLF CLUB	150 FAIRWAY Drive # SPR PASS CHRISTIAN MS 39571	61241909	1"
11-0 15 15003-02	1515 E BEACH POA INC	1515 E BEACH Blvd # UNITS-HI PASS CHRISTIAN MS 39571	11064599	4"
<u>11-0 1515004-0 1</u>	1515 E BEACH POA INC	1515 E BEACH BIVd # UNITS-LO PASS CHRISTIAN MS 39571	22001682	3/4"
01-01573001-01	WAYNE'S MUFFLER SHOP	1573 E RAILROAD St PASS CHRISTIAN MS 39571	279989360	3/4"
<u>11-01609001-01</u>	MURPHY USA #6917	1609 E BEACH BIVI PASS CHR ISTIAN MS 39571	11079635	3/4"
<u>11-01617001-02</u>	WALMART STORES INC#01- 5079	1617 E BEACH BIVD # SPRINKLER PASS CHRISTIAN MS 39571	11047881	2"
<u>11-0 1617002-02</u>	WALMART STORES INC#01- 5079	1617 E BEACH Blvd # STORE PASS CHRISTIAN MS 39571	11047882	2"
05-00166003-02	CRYSTAL SEAS SEAFOOD	166 1/2 W NORTH St PASS CHRISTIAN MS 39571	4440915	2"

ACCT#	ACCOUNT NAME	ADDRESS	SERIAL#	METER SIZE
<u>05-0016600 2-02</u>	CRYSTAL SEAS SEAFOOD	166 1/2 W NORTH St PASS CHRISTIAN MS 39571	14071214	1"
05-00166005-01	CRYSTAL SEAS SEAFOOD	166 W NORTH St # HI PASS CHRISTIAN MS 39571	70225554	4"
05-00166006-01	CRYSTAL SEAS SEAFOOD	166 W NORTH St # LO PASS CHRISTIAN MS 39571	9132001	3/4"
05-00166001-02	CRYSTAL SEAS SEAFOOD CO	166 W NORTH St PASS CHR ISTIAN MS 39571	24101373	1"
02-00205002-02	COAST EYECARE PLLC	205 E SECOND St PASS CHR ISTIAN MS 39571	84134253	3/4"
02-00207001-02	ADOLPH BOURDIN INC	207 E SCENIC Dr PASS CHRIST IAN MS 39571	2020026000	3/4"
11-00208003-00	PIRATES COVE	208 MENGE Ave Pass Christian MS 39571	2200383	3/4"
02-00209001-01	LISA N TRUONG	209 E SECOND St PASS CHRISTIAN MS 39571	3738051	3/4"
<u>05-00 2 11001-06</u>	AL SAM'S	211 W NORTH St PASS CHRIST IAN MS 39571	19010076	3/4"
02-00212003-04	NICAUD PC	212 E SECOND St Pass Christian MS 39571	8734562	3/4"
<u>03-0021300 1-02</u>	PASS CHRISTIAN CHIRO MED	213 HENDERSON AVE 2ND TAP PASS CHRISTIAN MS 39571	3826854	3/4"

ACCT#	ACCOUNT NAME	ADDRESS	SERIAL#	METER SIZE
05-00215003-02	ALL SEASONS LAWN MAINT INC	215 W NORTH St PASS CHRISTIAN MS 39571	8716835	3/4"
02-00216001-03	OUR MOTHER OF MERCY	216 SAUCIER AVE SCHOOL PASS CHRISTIAN MS 39501	46431250	3/4"
05-002 17001-04	ALL SEASONS LAWN MAINT INC	217 W NORTH St PASS CHR ISTIAN MS 39571	3738048	3/4"
<u>02-00220001-03</u>	EAGAN Q PROPERTIES LLC	220 E SCENIC Dr PASS CHRISTIAN MS 39571	52099084	3/4"
02-00222003- 00	EAGAN Q PROPERTIES	222 E SCENIC Dr Pass Christian MS 39571	8875956	2"
<u>05-00224004-0 2</u>	A STEP ABOVE MARINE CONTRACTING	224 W NORTH St PASS CHRISTIAN MS 39571	9054662	1 1/2"
05-00227004-07	CORVETTES LLC	227 W NORTH St PASS CHRISTIAN MS 39571	34000052	1"
<u>02-00230001-01</u>	SOUTHERN PRINTING AND SILK	230 DAVIS AVE PASS CHRISTIAN MS 39571	98123410	3/4"
02-00230002-02	EAGAN Q PROPERTIES LLC	230 E SCENIC Dr PASS CHRISTIAN MS 39571	10124129	3/4"
02-00232002-02	AVRA E O'DWYER	232 E SCENIC Dr PASS CHRISTIAN MS 39571	10124064	3/4"
<u>02-00234001- 10</u>	OLLIE L BAILEY	234 DAVIS AVE PASS CHRISTIAN MS 39571	10116766	3/4"
<u>11-00242001-06</u>	LEWIE G "SKIP" NEGROTTO IV	242 FLEITAS AVE PASS CHR ISTIAN MS 39571	22003563	3/4"
02-00243003 -01	BELL SOUTH -BUILDING SERV CTR	243 E SECOND St PASS CHRISTIA N MS 39571	20069000	3/4"
03-00250001 -01	FIRST BAPTIST CHURCH	250 CLARKE AVE PASS CHRISTIAN MS 39571	11155509	1"
02-00255 001-08	ROBIN'S NEST IN THE PASS, LLC	255 DAVIS AVE PASS CHRISTIAN MS 39571	20194000	3/4"
<u>02-00255 018-0 1</u>	COMPASS ROSE INC	255 E SCENIC Dr # POOL PASS CHRISTIAN MS 39571	20010600	3/4"
02-00257001-03	COASTAL FAMILY HEALTH CENTER	257 DAVIS AVE PASS CHRISTIAN MS 39571	95602480	3/4"

ACCT#	ACCOUNT NAME	ADDRESS	SERIAL#	METER SIZE
02-00259001-05	THE BLIND TIGER	259 E SCENIC Dr PASS CHRISTIAN MS 39571	56034142	3/4"
02-0026500 1-01	HANCOCK BANK	265 E SCENIC Dr PASS CHRISTIA N MS 39571	11149932	3/4"
02-002 85002-00	PASS PURCHASING	285 E HARBOR Dr # ICE HOUSE Pass Christian MS 39571	8424271	1 1/2"
02-00285001-00	PASS PURCHASING	285 E HARBOR Dr Pass Christian MS 39571	8942920	1 1/2"
02-0029000 2-00	JERRY FORTE SEAFOOD	290 E HARBOR Dr Pass Christian MS 39571	35000024	1 1/2"
02-00295000-00	KIMBALL'S	295 E HARBOR Drive Pass Christian MS 39571	22003451	3/4"
02-00030000- 00	SEA LEVEL	3 S HIERN Avenue Pass Christian MS 39571	17011178	3/4"
02-00300 001-01	C C LYNCH & ASSOCIATES	300 DAVIS AVE PASS CHRISTIAN MS 39571	20333333	2"
02-00300005-01	PASS CHRISTIAN BOOKS / CAT ISLAND COFFEEHOUSE LLC	300 E SCENIC Dr Pass Christian MS 39571	22000384	3/4"
02-00301003-01	THE PEOPLES BANK	301 E SECOND St PASS CHRISTIAN MS 39571	6558542	3/4"
02-0030 3000-00	BORGUEZAN GRANITE LLC	303 FLEITAS Ave # SPR PASS CHRISTIAN MS 39571	18240663	3/4"
02-00303001-07	BORGUEZAN GRANITE LLC	303 FLEITAS Ave PASS CHRISTIAN MS 39571	94566611	3/4"
02-0000030 6-00	BBIN PC LLC	306 E HARBOR Drive # ice Pass Christian MS 39571	17140865	3/4"
1-00306001-02	COBURN SUPPLY COMPANY	306 FLEITAS AVE PASS CHR ISTIAN MS 39571	18231967	3/4"
02-0031400 3-01	SOUTHERN PRINTING AND SILK	314 HANDY LN SPRINKLER PASS CHRISTIAN MS 39571	57635121	3/4"
02-00322001-01	GOODWILL BAPTIST CHURCH	322 DAVIS AVE PASS CHRISTIAN MS 39571	46851070	3/4"
02-003 22002-01	FIRST BAPTIST CHURCH OF PASS CHRIST	322 E SECOND St PASS CHRISTIAN MS 39571	22001668	3/4"

ACCT#	ACCOUNT NAME	ADDRESS	SERIAL#	METER SIZE
05-00322001-05	MARIA G DOMINQUEZ	322 W NORTH St PASS CHRISTIA N MS 39571	3833984	3/4"
05-00323001-04	PASS BUSINESS TERMINAL	323 E NORTH St PASS CHRISTIAN MS 39571	83588637	2"
05-0032400 1-04	OMEGA MINISTRIES INC	324 W NORTH St PASS CHRISTIAN MS 39571	3833367	3/4"
05-00326001-02	THE CORK & BOTTLE	326 W NORTH St PASS CHRISTIAN MS 39571	3833985	3/4"
05-003 3000 1-03	THE PASS CHRISTIAN SOAP	330 W NORTH St PASS CHRISTIAN MS 39571	2627629	3/4"
02-00345002-01	KEEL LUMBER CO	345 FLEITAS AVE PASS CHRISTIAN MS 39571	8637370	3/4"
02-00388003-07	CLEVELAND'S SEAFOOD	388 RAFFERTY ST PASS CHRISTIAN MS 39571	18212155	3/4"
03-00396002-01	WPSCO	396 CLARKE AVE PASS CHRISTIAN MS 39571	3751500	3/4"
05-0040000 8-01	C & J QUICK STOP	400 HENDERSON AVE ICE HOUSE PASS CHRISTIAN MS 39571	18240231	3/4"
05-00400007-01	C & J QUICK STOP	400 HENDERSON AVE PASS CHRISTIAN MS 39571	2435061	3/4"
05-00401001-02	HAPPY ICE *	401 W NORTH St PASS CHRISTIAN MS 39571	4754457	3/4"
05-00402003-03	PASS MARINE REPAIR LLC	402 FLEITAS AVE PASS CHRISTIAN MS 39571	59161127	3/4"
<u>0</u> 5-00403001-03	TAYLOR MADE SOIL CENTER	403 MENGE AVE PASS CHRISTIAN MS 39571	37836173	3/4"
03-00408001 -01	PASS CHRISTIAN PET CARE	408 ST LOUIS St # HOUSE PASS CHRISTIAN MS 39571	3396321	3/4"
<u>0</u> 3-00408002-02	PASS CHRISTIAN PET CARE	408 ST LOUIS St # SPRINKLER PASS CHRISTIAN MS 39571	0514872	3/4"
<u>0</u> 3-00409001-03	LIVE OAK ANIMAL HOSPITAL	409 ST LOUIS St # SPRINKLER PASS CHR ISTIAN MS 39571	11155704	1"
11-00412001-10	MARVINA L BRYANT	412 E NORTH St PASS CHRISTIA N MS 39571	010956000	3/4"

ACCT#	ACCOUNT NAME	ADDRESS	SERIAL#	METER SIZE
05-00450002-00	PASS CHRISTIAN YACHT WORKS LLC	450 FLEITAS Ave Pass Christian MS 39571	11074322(a)	3/4"
<u>05-00455001-01</u>	MATTHEWS BROTHERS DREDGING INC	455 FLEITAS AVE PASS CHR ISTIAN MS 39571	1042576	1"
<u>05-0045500 2-01</u>	MATTHEWS BROTHERS DREDGING INC	455 FLEITAS AVE SPRINKLER PASS CHR ISTIAN MS 39571	8945248	2"
03-00500001-0 2	KERN COLLINS DOLLAR GENERAL # 10180	500 W NORTH St # DOLLAR GEN PASS CHRISTIAN MS 39571	12818758	3/4"
05-00500002-0 2	AALCO SELF STORAGE LLC	500 W NORTH St PASS CHRISTIAN MS 39571	98120376	3/4"
<u>05-00500003-01</u>	HAROLD H DAWLEY JR	500 W NORTH St PASS CHR ISTIAN MS 39571	2003553	3/4"
5 1-00515002-01	TIMBER RIDGE POA	515 HENDERSON & ROYAL POA BLDG Pass Christian MS 39571	12818326	3/4"
04-00520002-01	PASS CHRISTIAN ISLES GOLF CLUB	520 PRENTISS RD PASS CHRISTIAN MS 39571	050103100	3/4"
<u>05-0052500 2-06</u>	HAROLD H DAWLEY	525 W NORTH St PASS CHRISTIAN MS 39571	050068000	3/4"
0 1-00526001-04	SELAH YOGA	526 E SECOND St PASS CHRISTIAN MS 39571	95603025	3/4"
<u>05-00538001-01</u>	DIXIE WHITE HOUSE NURSING HOME	538 MENGE AVE PASS CHRISTIAN MS 39571	5104504	2"
05-00546001-04	MS HUD DIXIE LLC	546 MENGE AVE PASS CHRISTIAN MS 39571	R215573	3/4"

ACCT#	ACCOUNT NAME	ADDRESS	SERIAL#	METER SIZE
51-00590001-01	ROYAL PINES APARTMENTS	590 ROYAL OAK DR A PASS CHRISTIAN MS 39571	1327551	1 1/2"
51-00590002-0 2	ROYAL PINES APARTMENTS	590 ROYA L OAK DR B PASS CHRISTIAN MS 39571	5367333	1 1/2"
05-00607001-02	LOGAN'S CUSTOM MARINE & REPAIR	607 E NORTH St PASS CHRISTIAN MS 39571	52042703	3/4"
05-00611 001-02	ALL SEASONS BOAT STORAGE LLC	611 W NORTH St PASS CHR ISTIAN MS 39571	3708378	3/4"
<u>05-0062 1001-01</u>	TORGESON MOTORS	621 E NORTH St PASS CHRISTIAN MS 39571	18328938	3/4"
13-00640002-04	NORTH STREET 1 LLC	640 HURRICANE CIR CLUB HOUSE PASS CHRISTIAN MS 39571	84134163	3/4"
05-00707003 -03	CARIBBEAN IN THE PASS	707 E NORTH St PASS CHRISTIAN MS 39571	339543 1	1"
05-00707002-03	CARIBBEAN IN THE PASS	707 E NORTH St PASS CHRISTIAN MS 39571	C6973625	6"
04-00734001-01	PASS CHRISTIAN CORP	734 W BEACH BIVD # POOL PASS CHR ISTIAN MS 39571	11077991	3/4"
06-00796002-02	PASS ESTATES LLC	796 BRILL ST OFFICE PASS CHR ISTIAN MS 39571	10124068	3/4"
05-00883001-05	L & M LAUNDRY MAT	883 E NORTH St PASS CHRISTIAN MS 39571	3732822	1"
05-00885001-11	DADDYZ IN THE PASS	885 E NORTH St PASS CHR ISTIAN MS 39571	37886175	3/4"
07-00900002-01	INN BY THE SEA	900 VILLAGE LN CAFE PASS CHRISTIAN MS 39571	11064596	4"
01-00905001-07	AVMI LLC	905 E SECOND St # HOUSE PASS CHRISTIAN MS 39571	010311000	3/4"
51-00099001-01	TIMBER RIDGE POA	99 COUNTRY CLUB DR PASS CHR ISTIAN MS 39571	78305982	3/4"
51-00099002-01	TIMBER RIDGE POA	99 COUNTRY CLUB DR POOL & BA PASS CHRISTIAN MS 39571	78305984	3/4"